

## TAB V

### WITNESS TESTIMONY AND STATEMENTS

V1.	VERBATIM TESTIMONY OF MR.	WITNESS 5	.....	V-3.1
V2.	VERBATIM TESTIMONY OF SSGT	WITNESS 22	.....	V-4.1
V3.	VERBATIM TESTIMONY OF MSGT	WITNESS 4	.....	V-5.1
V4.	VERBATIM TESTIMONY OF MSGT	WITNESS 9	.....	V-6.1
V5.	VERBATIM TESTIMONY OF MAJ	WITNESS 1	.....	V-7.1
V6.	VERBATIM TESTIMONY OF LT COL	WITNESS 16	.....	V-8.1
V7.	VERBATIM TESTIMONY OF CAPT	WITNESS 12	.....	V-9.1
V8.	VERBATIM TESTIMONY OF CAPT	WITNESS 6	.....	V-10.1
V9.	VERBATIM TESTIMONY OF SSGT	WITNESS 27	.....	V-11.1
V10.	VERBATIM TESTIMONY OF LT COL	WITNESS 17	.....	V-12.1
V11.	VERBATIM TESTIMONY OF MR	WITNESS 11	.....	V-13.1
V12.	VERBATIM TESTIMONY OF CAPT	WITNESS 6	.....	V-14.1
V13.	VERBATIM TESTIMONY OF SSGT	WITNESS 22	.....	V-15.1

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**V1. VERBATIM TESTIMONY OF MR. WITNESS 5**

**VERBATIM TESTIMONY OF**

**MR. WITNESS 5**

**LEGAL ADVISOR:** My name is Lt Col AIB/LA . I am the legal advisor for the Accident Investigation Board.

**WITNESS:** Okay.

**LEGAL ADVISOR:** We have some preliminary statements that we have to –

**WITNESS:** Ma'am, I hate to – can I stop you right there. I am going to try and shut this door so that I can hear better. I've got some stuff going on in the back.

**LEGAL ADVISOR:** Go right ahead.

**WITNESS:** Give me one second. I am going to put you on speaker phone, ma'am, if that is okay?

**LEGAL ADVISOR:** Okay. Who else it – Yeah, go ahead.

**WITNESS:** Wait one. Can you hear me now, ma'am?

**LEGAL ADVISOR:** Yes, we got you loud and clear.

**WITNESS:** Okay, good. Yeah, the person is my – my lead, W26 .

**LEGAL ADVISOR:** Okay. Good evening, Mr. W26 , how are you tonight.

**MR. W26 :** How are you doing, ma'am?

**LEGAL ADVISOR:** I'm doing well, thank you. Can you verify that Mr. W5 is who he states he is?

**MR. W26 :** Yes, he is.

**LEGAL ADVISOR:** Okay. That is one of the technicalities of doing this over the telephone.

**MR. W26 :** Yes, ma'am.

**LEGAL ADVISOR:** All right. Mr. W5 , we have some preliminary matters to go over with you. Then we'll get to the few questions that Sergeant AIB/LM has for you, okay?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** My name is Lieutenant Colonel AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503,

is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay. And, just so we are clear, we do have access to two prior statements that you provided, one of which was on the night of the incident, and then the second one was the one that you gave to the safety board without any promise of confidentiality. Do you recall making those statements?

**WITNESS:** Correct, ma'am.

**LEGAL ADVISOR:** Okay. All right, I also have to inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** At this time, I am going to swear you in and then we have a couple more preliminary matters. So, if you would please raise your right hand.

Do you solemnly swear or affirm that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** All right; thank you. Go ahead and put your hand down.

Today is November 14th, 2015. The time is now 1757 Central Standard Time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are Mr. W5, myself, Lieutenant Colonel AIB/LA, Master Sergeant AIB/LM, the loadmaster member of our AIB team; Brigadier General Patrick Mordente, the AIB board president; and Staff Sergeant AIB/R, our recorder.

And, Mr. W5, I understand your supervisor, Mr. W26, is still present?

**WITNESS:** Yes, ma'am; yes.

**LEGAL ADVISOR:** Okay, and I would just like to caution you and remind you, please don't look to him for any answers. If you don't know and you think he does, just simply tell us you don't know and that's – he can't be helping you, basically. Does that make sense?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay.

**Q1 (LEGAL ADVISOR):** So, if you could, please state your full name?

**A1 (WITNESS):** W5 .

**Q2 (LEGAL ADVISOR):** And who is your employer?

**A2 (WITNESS):** .

**Q3 (LEGAL ADVISOR):** And are you a contractor?

**A3 (WITNESS):** Correct, ma'am.

**Q4 (LEGAL ADVISOR):** Is that a contract with the Air Force?

**A4 (WITNESS):** With the Army.

**Q5 (LEGAL ADVISOR):** With the Army, okay. What is your current job title?

**A5 (WITNESS):** Movement Control Specialist.

**Q6 (LEGAL ADVISOR):** And what is your current location of assignment?

**A6 (WITNESS):** I am – presently I am at J-bad, which is Fenty, Jalalabad, Afghanistan.

**Q7 (LEGAL ADVISOR):** Okay. What is the difference between J-bad and Fenty?

**A7 (WITNESS):** It is the same place, just different names.

**Q8 (LEGAL ADVISOR):** All right. And, how long have you been there?

**A8 (WITNESS):** Been here at Fenty, ma'am?

**Q9 (LEGAL ADVISOR):** Yes.

**A9 (WITNESS):** I've been here approximately about 18 months.

**(LEGAL ADVISOR):** At this time, I'm going to turn it over to Master Sergeant AIB/LM to ask you the more substantive questions. Thank you, sir.

**(WITNESS):** Thank you, ma'am.

**Q10 (LOADMASTER MEMBER):** All right, Mr. W5 , Sergeant AIB/LM I'm the C130J loadmaster SME for the accident investigation board. I have a few questions for you.

**A10 (WITNESS):** Yes, sir.

**Q11 (LOADMASTER MEMBER):** I will start with number one. In regards to the interview you adopted can you provide additional clarification on the passenger placement on the aircraft that night?

**(LEGAL ADVISOR):** Hold on one second. We forgot to go over one thing, Mr. W5 . So, you provided a previous statement to the safety board without the promise of confidentiality. Do you remember that statement?

**(WITNESS):** Yes, ma'am.

**(LEGAL ADVISOR):** Okay. Would you like to adopt that statement as part of your interview tonight? Basically, is there anything different in that statement? Or, is everything still true and accurate to the best of your recollection?

**(WITNESS):** Yes, ma'am. [See Tabs R-13 to R-16 and V-3.8.]

**(LEGAL ADVISOR):** Okay. Would you like to adopt it then?

**(WITNESS):** Yes, ma'am.

**(LEGAL ADVISOR):** Okay. Now, we are going to pick up with Sergeant AIB/LM. I apologize for that.

**Q11 REPEATED (LOADMASTER MEMBER):** In regards to the interview you adopted, can you provide additional clarification on the passenger placement on the aircraft that night? Can you give me a –

**A11 (WITNESS):** Passenger flight station, sir?

**Q11 CONTNUED (LOADMASTER MEMBER):** Yeah, can you give me a specific flight station -- where they were seated on the aircraft?

**A11 CONTINUED (WITNESS):** If you look forward – the aircraft– sir, they were positioned in the left-hand side.

**Q12 (LOADMASTER MEMBER):** Okay, aircraft left side.

**A12 (WITNESS):** And, that is pallet position. So, that would be pallet position one, sir.

**Q13 (LOADMASTER MEMBER):** Okay. Would you say they were in the middle of pallet position one?

**A13 (WITNESS):** In the middle and to the left, sir.

**Q14 (LOADMASTER MEMBER):** Okay; and, there were five passengers, correct?

**A14 (WITNESS):** Yes, sir.

**Q15 (LOADMASTER MEMBER):** Did they have any bags with them?

**A15 (WITNESS):** Just their carry bags, like little knapsack bags.

**(LOADMASTER MEMBER):** Okay.

**(ANOTHER TEAM MEMBER):** Were they on a pallet?

**Q16 (LOADMASTER MEMBER):** Those bags weren't on a pallet or anything like that, correct? They hand carried all of those bags on?

**A16 (WITNESS):** They hand carried – yes, sir.

**Q17 (LOADMASTER MEMBER):** We came to understand that one of those passengers was actually departing the AOR for good, is that correct?

**A17 (WITNESS):** That I do not know, sir.

**Q18 (LOADMASTER MEMBER):** All right; also referencing your interview, you referenced a second load plan. Tell me a little bit about that second load plan.

**A18 (WITNESS):** A second load plan?

**Q19 (LOADMASTER MEMBER):** Yes, sir.

**A19 (WITNESS):** The second load plan was – I was – when I was talking to Senior Airman ML2, he wanted to take a look at the second load plan, because they was running a double leg that night, sir, an Alpha and a Bravo leg, and he wanted to see the weights off of those, and he was trying to decide whether if he wanted to exchange any pallets from the second load to the first load for the weight differences on it.

**Q20 (LOADMASTER MEMBER):** And the reason why I'm asking that is because now we have two load plans on the aircraft at the same time. Is there any chance that the second load plan that was brought out to the aircraft was input into the mission computer?

**A20 (WITNESS):** No, sir.

**Q21 (LOADMASTER MEMBER):** How can you verify that?

**A21 (WITNESS):** Because he took the load plan back away from him. They took it off of the aircraft.

**Q22 (LOADMASTER MEMBER):** Okay. So, at no time that second load plan left your sight?

**A22 (WITNESS):** No, sir. As a matter of fact, he looked at it on the back of the aircraft on the ramp, sir.

**Q23 (LOADMASTER MEMBER):** Do you recall any of the loadmasters having any difficulty locking any of the pallets in that night?

**A23 (WITNESS):** No, sir.

**Q24 (LOADMASTER MEMBER):** You don't recall any of them having light issues with the PLCUs on the aircraft?

**A24 (WITNESS):** What I am saying is, there was no problem whatsoever with them being locked in.

**Q25 (LOADMASTER MEMBER):** Okay, no problem with them being locked in. But, was any of the equipment on the aircraft malfunctioning when it came to the aircraft cargo locks?

**A25 (WITNESS):** No, sir.

**Q26 (LOADMASTER MEMBER):** There were no blinking lights on the PLCUs? And, do you know what a PLCU is?

**A26 (WITNESS)** No, sir.

**A26 (WITNESS):** Yes, sir.

**Q27 (LOADMASTER MEMBER):** And, you already said that the passengers only had light carry-ons, correct?

**A27 (WITNESS):** Yes, sir.

**Q28 (LOADMASTER MEMBER):** Can you give me like a guesstimated weight of those light carry-ons or how many bags there were?

**A28 (WITNESS):** One bag each per person. Probably no more than 10 pounds, 15 pounds at the most of each bag.

**Q29 (LOADMASTER MEMBER):** So, no big hard cases or no big duffel bags, none of that?

**A29 (WITNESS):** No, sir.

**Q30 (LOADMASTER MEMBER):** And, the last question I have for you. At any time prior to the incident did you witness or were you informed by any of your crew of any cargo or anything else coming into contact with the aircraft in any way?

**A30 (WITNESS):** No, sir.

**Q31 (LOADMASTER MEMBER):** So, none of the MHE contacted, none of the pallets contacted the aircraft?

**A31 (WITNESS):** No, sir.

**(LOADMASTER MEMBER):** Okay.

**(PRESIDENT):** I have one.

**(LEGAL ADVISOR):** Okay, W5, General Mordente has a question for you.

**Q32 (PRESIDENT):** Mr. W5 –

**(WITNESS):** I'm sorry, who is speaking now?

**Q32 CONTINUED (PRESIDENT):** It is Brigadier General Mordente, Patrick Mordente. I am the AIB president. How are you doing?

**A32 (WITNESS):** I'm doing fine, sir. How are you doing?

**Q33 (PRESIDENT):** I am doing all right; thank you. Thank you for taking the time to talk with us tonight.

**A33 (WITNESS):** Yes, sir; not a problem.

**Q34 (PRESIDENT):** Just one quick question –

**A34 (WITNESS):** Yes, sir –

**Q34 CONTINUED (PRESIDENT):** And, this is again, just making sure we cover everything. At any time did the crew attempt to put any cargo of any type on the ramp?

**A34 CONTINUED (WITNESS):** No, sir.

**Q35 (PRESIDENT):** So, the ramp pallet position was not utilized?

**A35 (WITNESS):** Correct, sir.

**(PRESIDENT):** Okay; thank you.

**Q36 (LEGAL ADVISOR):** All right, W5, I am going to ask you the open ended question. Is there anything else you would like to add that you don't think we have through your prior statement or what you have told us tonight?

**A36 (WITNESS):** No, ma'am. Nothing to my recollection right now.

**Q37 (LEGAL ADVISOR):** Okay. So, nothing has come to your mind in the last few weeks, where you thought, "Oh, I wish I would have said that?"

**A37 (WITNESS):** No, ma'am.

**Q38 (LEGAL ADVISOR):** Okay.

**A38 (WITNESS):** Everything that I've told all of the investigators and everything so far has been up front and true.

**(LEGAL ADVISOR):** Awesome, and we do appreciate your time. I have one more formal paragraph to read before we conclude this interview.

**(WITNESS):** Yes, ma'am.

**READOUT**

**(LEGAL ADVISOR):** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore, please inform us if you intend to – if you are going to travel state side. So, if you are going to leave Afghanistan at all.

[The interview concluded.]

Non-Privileged Witness Statement (Reference AF191-204, attachment 3)

Witness 5

Date

I, I. (Name of Witness \_\_\_\_\_) (Grade) CLU (Organization) \_\_\_\_\_ have been advised by (Name of Investigator) ISB/I of the following:

- a. This investigation is being conducted under the provisions of AF191-204 solely for the purpose of mishap prevention within the United States Air Force and to determine all factors relating to the mishap in order to prevent recurrence. I understand I am being interviewed as a witness in a mishap investigation and I acknowledge that a promise of confidentiality has not been extended to me.
- b. This witness statement may be released to the public pursuant to a Freedom of Information Act request.
- c. The chain of command will review the final mishap report.

SIGNED

Witness Signature Block

WE STARTED our shift @ 1800 checked our flight board and had our 1st flight at 2155 TORGE-62A APPROXIMATELY 2000 received a call from ATIS notifying us that the aircraft returned to DRYDEN due to a Bird Strike. Received a call later that the A/C was inbound and landed @ 2315. I was working RAMP AND WAS IN CONTACT WITH THE CREW. I boarded the A/C with the load packet. I briefed the crew on the upland and PAY count. We discussed the HAZMAT and Signature Service Cargo. We Downloaded the Cargo without any Problem. We started the upland with the PAY first and then the Cargo. We discussed the weight of the Cargo and it seemed that they were concerned with the weight. They wanted to take a look at the second load PLAN to see if they could maybe swap a container from the second ~~leg~~ leg to the first leg. They called to get clarification and was given OK with the load. We loaded the A/C and all Pallets were locked Down. The Loadmaster Backed the K-Loader out from the A/C. I jumped off or got off the A/C shook hands with the Loadmaster and told him I would see him in a couple of hrs.

**V2. VERBATIM TESTIMONY OF SSGT**

Witness 22

**VERBATIM TESTIMONY OF**

**STAFF SERGEANT**

Witness 22

**LEGAL ADVISOR:** My name is Lieutenant Colonel AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board (AIB) is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board (SIB) will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay. I also have to inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay, and who else is present with you right now?

**WITNESS:** Staff Sergeant .

**LEGAL ADVISOR:** Okay. Staff Sergeant , can you please –

**WITNESS:** There is no speaker phone, ma'am.

**LEGAL ADVISOR:** There is no speaker phone. Okay, can you put him on the phone, please?

**WITNESS:** Yes; one second.

**STAFF SERGEANT** : Hello.

**LEGAL ADVISOR:** Hi, Staff Sergeant ?

**STAFF SERGEANT** : Yes.

**LEGAL ADVISOR:** This is Lieutenant Colonel AIB/LA . I am the legal advisor for the accident investigation board (AIB). I know this seems strange, but can you just verify that Sergeant W22 is who he says he is? Can you just state his name, please?

**STAFF SERGEANT** : Staff Sergeant W22 .

**LEGAL ADVISOR:** Okay; and, you don't have any concerns about that that is the person in the room with you right now?

**STAFF SERGEANT** : No, ma'am.

**LEGAL ADVISOR:** Okay, awesome. Can you put him back on the phone?

**STAFF SERGEANT** : Sure thing.

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** All right, Sergeant W22 , your testimony in this investigation will be under oath. At this time, I will administer the oath. If you would please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** I do.

**LEGAL ADVISOR:** Okay, thank you. Go ahead and put your hand down. All right, I'm almost through it all. Today is the 20th of November 2015. The time is now 1345 Central Standard Time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, myself, Lieutenant Colonel AIB/LA ; the board president, Brigadier General Patrick Mordente; I'm going to go through everyone here; Lieutenant Colonel AIB/PSME , Lieutenant Colonel AIB/MX , Captain AIB/M , Captain AIB/PM , Master Sergeant AIB/LM , and Staff Sergeant AIB/R , and these are all members of the accident investigation board.

**Q1 (LEGAL ADVISOR):** All right, now can you please state your full name and rank?

**A1 (WITNESS):** Staff Sergeant W22 .

**Q2 (LEGAL ADVISOR):** And, what is your current job title?

**A2 (WITNESS):** Data Records, NCOIC.

**Q3 (LEGAL ADVISOR):** What unit are you assigned to?

**A3 (WITNESS):** The 305th Aerial Port Squadron, McGuire Air Force Base.

**Q4 (LEGAL ADVISOR):** At McGuire?

**A4 (WITNESS):** Yes, ma'am.

**Q5 (LEGAL ADVISOR):** Okay. How long have you been at McGuire?

**A5 (WITNESS):** November 2008.

**Q6 (LEGAL ADVISOR):** And, you recently were deployed to Afghanistan, is that correct?

**A6 (WITNESS):** Yes, ma'am.

**Q7 (LEGAL ADVISOR):** What unit were you attached to when you were deployed?

**A7 (WITNESS):** The 455th ELRS.

**Q8 (LEGAL ADVISOR):** And, where were you operating out of?

**A8 (WITNESS):** Bagram, Afghanistan.

**Q9 (LEGAL ADVISOR):** Did you go down to Jalalabad at all?

**A9 (WITNESS):** Yes, ma'am.

**Q10 (LEGAL ADVISOR):** Okay; and, when was that?

**A10 (WITNESS):** It was –

**Q11 (LEGAL ADVISOR):** Was it just one time or were there multiple times?

**A11 (WITNESS):** Just one time, ma'am; 28 October – 27 October, I believe – or, 27 September is when we arrived in Jalalabad.

**Q12 (LEGAL ADVISOR):** Okay. Then, were you there on the night of the accident; so 1 October to 2 October?

**A12 (WITNESS):** Yes, ma'am.

**LEGAL ADVISOR:** Okay. At this time, I am going to turn it over to Master Sergeant [REDACTED] AIB/LM [REDACTED], the loadmaster on our team and he is going to take the questions from here.

**Q13 (LOADMASTER MEMBER):** All right, Sergeant [REDACTED] W22 [REDACTED], how are you doing?

**A13 (WITNESS):** Fine, sir.

**Q14 (LOADMASTER MEMBER):** Okay, I have just a couple of questions for you about the cargo. Do you remember the cargo that you loaded that night?

**A14 (WITNESS):** Yes, sir.

**Q15 (LOADMASTER MEMBER):** Can you tell me how the tri-cons – were the tri-cons all filled to capacity?

**A15 (WITNESS):** For the most part, sir.

**Q16 (LOADMASTER MEMBER):** When you say, “for the most part,” does that mean there was room for the cargo to shift around in there?

**A16 (WITNESS):** Negative, sir. Any cargo that was – I mean, it wasn't filled to the brim, but everything – We were there for the inspection prior to and everything was blocked and braced accordingly.

**Q17 (LOADMASTER MEMBER):** Okay, now how exactly was it blocked and braced?

**A17 (WITNESS):** It was either, a few had netting, and others were plywood and/or other pieces of wood to keep it from shifting, sir, tied down with straps.

**Q18 (LOADMASTER MEMBER):** Okay. So, there was no chance that the cargo could have shifted forward, aft, side-to-side, up or down?

**A18 (WITNESS):** No, sir, not to my knowledge, sir.

**Q19 (LOADMASTER MEMBER):** All right. Now, when you guys – when they loaded it, because you were there physically when they were loading the cargo in there, were they just pushing everything to the back to make room for everything?

**A19 (WITNESS):** Not really, sir. A lot of it was like pelican cases or gorilla boxes. So, it was stacked up pretty simple for the most part.

**Q20 (LOADMASTER MEMBER):** Can you tell me, were the heaviest items actually centered in the tri-cons? Do you know what I'm saying, like, the way we are supposed to build pallets? The pallets have to have the heaviest part in the middle and then everything built around it?

**A20 (WITNESS):** We advised them to do that when they were loading it up. For the most part, sir, I would say that is correct.

**Q21 (LOADMASTER MEMBER):** Okay, for the most part. So were the actual CGs of the pallets marked?

**A21 (WITNESS):** The CGs of the pallets?

**Q22 (LOADMASTER MEMBER):** Yes, the center of gravities?

**A22 (WITNESS):** No, sir.

**Q23 (LOADMASTER MEMBER):** No, they were not? Okay. So, we don't have any way of knowing where the CG of each pallet was in the aircraft?

**A23 (WITNESS):** No, sir.

**Q24 (LOADMASTER MEMBER):** All right, and the pallet scales, were you there for the weighing of the pallets?

**A24 (WITNESS):** Not the actual weighing, sir.

**Q25 (LOADMASTER MEMBER):** But do you know the pallet scales they used?

**A25 (WITNESS):** That was over at MCT yard, sir, across the way. They use portable scales from what I was under the impression of.

**Q26 (LOADMASTER MEMBER):** So, you never saw the scales or saw them weighed?

**A26 (WITNESS):** Not physically, sir.

**Q27 (LOADMASTER MEMBER):** Who over in MCT was responsible for that?

**A27 (WITNESS):** There was a hold handful of – I don't know names exactly, sir. All we did as far as the JI was worry about most of the paperwork and all of the physical tying down and palletizing of cargo was the MCT yard.

**Q28 (LOADMASTER MEMBER):** So, you can confirm that there is no way in any five of those tri-cons that the cargo could have shifted around inside of there?

**A28 (WITNESS):** Prior to it being closed up, sir, no sir.

**Q29 (LOADMASTER MEMBER):** Okay. But, the CGs of the actual pallets weren't actually marked. So, it could have been in the front of the pallet and it could have been in the aft part of the pallet, correct?

**A29 (WITNESS):** Yes, sir.

**LOADMASTER MEMBER:** All right. I think that is all of the questions I had. Does anyone else have any questions for him?

**Q30 (BOARD PRESIDENT):** Hey, Sergeant W22 , this is General Mordente, how are you doing?

**A30 (WITNESS):** Good, sir.

**Q31 (BOARD PRESIDENT):** Thanks again for taking the time to talk with us today.

**A31 (WITNESS):** Sir, no problem.

**Q32 (BOARD PRESIDENT):** You said there was a bunch of pelican cases. Did you see what was being put in those tri-cons? Could you describe the cargo other than pelican cases?

**A32 (WITNESS):** Out of the pallets, sir, we did 22 pallets because there were two legs. Well, four legs that were going back to Bagram. Out of those, I believe five or six pallets that were on that jet that night, I couldn't tell you exactly what was on those. But, 80 percent of the 22 pallets that we did was mostly PE and/or weapons or comm equipment, sir.

**Q33 (BOARD PRESIDENT):** Okay. Thank you. I appreciate it.

**A33 (WITNESS):** Yes, sir.

**Q34 (LEGAL ADVISOR):** Okay, Sergeant W22 , this is Lieutenant Colonel AIB/LA again. Is there anything else you would like to add that you think we should know?

**A34 (WITNESS):** No, ma'am.

**LEGAL ADVISOR:** All right. Well, we do appreciate your time today, and I have a final statement that I have to read to you now.

#### **READOUT**

**LEGAL ADVISOR:** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore, if you are going to go on leave or anything, if you could please just send Sergeant AIB/LM an email with some – with a cell phone number just so that we can contact you if there are any questions that we have.

**WITNESS:** Copy that.

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**V3. VERBATIM TESTIMONY OF MSGT**

Witness 4

**VERBATIM TESTIMONY OF**

**MASTER SERGEANT**

Witness 4

**LEGAL ADVISOR:** My name is Lt Col AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay. I must inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay; and is there anyone else present with you right now?

**WITNESS:** Just two individuals from legal.

**LEGAL ADVISOR:** And that is Captain and Sergeant ?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Can you put the captain on the phone real quick?

**WITNESS:** Yes, ma'am.

[The witness complied with the AIB/LA's request.]

**CAPTAIN** : Captain

**LEGAL ADVISOR:** Hi, Captain , can you confirm that Sergeant W4 is who he says he is?

**CAPTAIN** : Yes, ma'am. I'm looking at his CAC card. I've looked at it.

**LEGAL ADVISOR:** Okay; thank you. Please put him back on the phone.

**CAPTAIN** : Yes, ma'am.

[Captain complied.]

**WITNESS:** Sergeant W4 .

**LEGAL ADVISOR:** Okay; thank you. Your testimony in this investigation will be under oath. At this time, I will administer the oath. Please go ahead and raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** Okay. Go ahead and put your hand down.

Today is the 23rd of November 2015. The time is now 0845 Central Standard Time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Master Sergeant W4 the board president, Brigadier General Patrick Mordente, the legal advisor, Lieutenant Colonel AIB/LA , the pilot subject matter expert, Lieutenant Colonel AIB/PSME , the maintenance member, Lieutenant Colonel AIB/MX , the pilot member, Captain AIB/PM , the loadmaster member, Master Sergeant AIB/LM .

**Q1 (LEGAL ADVISOR):** Sergeant W4 , we know that you previously gave a non-privileged interview to the Safety Investigation Board (SIB) on 2 October. Do you remember providing that statement?

**A1 (WITNESS):** [No response.]

Are you still there?

[The telephonic interview was disconnected.]

[The telephonic interview was reinstated and the interview continued.]

**Q2 (LEGAL ADVISOR):** All right. I'm going to back up a little bit and start again with your previous interview. You previously gave a non-privileged interview to the Safety Investigation Board on 2 October 2015. Do you remember providing this statement?

**A2 (WITNESS):** Yes, ma'am.

**Q3 (LEGAL ADVISOR):** And, would you like to adopt this prior statement as part of your testimony today?

**A3 (WITNESS):** Yes, ma'am. [See Tab V-5.6]

**Q4 (LEGAL ADVISOR):** Can you please state your full name and rank?

**A4 (WITNESS):** Master Sergeant W4 .

**Q5 (LEGAL ADVISOR):** What is your current job title?

**A5 (WITNESS):** Production superintendent.

**Q6 (LEGAL ADVISOR):** What is your current unit of assignment and location?

**A6 (WITNESS):** Deployment location, ma'am?

**Q7 (LEGAL ADVISOR):** Yes.

**A7 (WITNESS):** Or, home station location?

**Q8 (LEGAL ADVISOR):** We will do both. So, go ahead with the deployment location first.

**A8 (WITNESS):** Deployment location will be 455th EAMXS, Bagram Airfield, Afghanistan. And, home station would be 317th AMXS Dyess Air Force Base, Texas.

**Q9 (LEGAL ADVISOR):** And, how long have you been deployed to Bagram?

**A9 (WITNESS):** Since the 7th of September, ma'am.

**Q10 (LEGAL ADVISOR):** Okay. And, are you familiar with the C-130J accident that happened on 2 October 2015?

**A10 (WITNESS):** Yes, ma'am.

**Q11 (LEGAL ADVISOR):** Okay. At this point, I'm turning it over to Lieutenant Colonel AIB/PSME to ask you some more – or, I'm sorry, to Lieutenant Colonel <sup>AIB/MX</sup>, to ask you some maintenance substantive questions.

**A11 (WITNESS):** Yes, ma'am.

**Q12 (MAINTENANCE MEMBER):** Hello, Sergeant W4 . This is Lieutenant Colonel <sup>AIB/MX</sup>. I am the maintenance member on the AIB.

**A12 (WITNESS):** Yes, ma'am.

**Q13 (MAINTENANCE MEMBER):** Sergeant W4 , you are the pro-super now. Now, how long were you the pro-super prior to deployment back in Dyess?

**A13 (WITNESS):** Ma'am, I would say probably anything between at most probably a year and a half.

**Q14 (MAINTENANCE MEMBER):** Okay. So, total your time at Dyess and now?

**A14 (WITNESS):** Yes, ma'am.

**Q15 (MAINTENANCE MEMBER):** So, since your deployment, and also can you recall any time prior to the deployment when you were still back in Dyess, did you have any elevator or elevator trim tab or elevator boost pack issues that you can recall?

**A15 (WITNESS):** Umm, on the specific airplane or –

**Q16 (MAINTENANCE MEMBER):** Specific to – yes the aircraft –

**A16 (WITNESS):** or, other airplanes?

**Q17 (MAINTENANCE MEMBER):** Yes, aircraft 3147 – 3174?

**A17 (WITNESS):** No, ma'am, no elevator issues of any sort that I know of.

**Q18 (MAINTENANCE MEMBER):** Okay. Next question; you had – in the forms, when I reviewed them, there were numerous write-ups for the number four engine; high oil temp and also oil cooler flap sticking?

**A18 (WITNESS):** Yes, ma'am.

**Q19 (MAINTENANCE MEMBER):** And, a lot of those write-ups were back at Dyess, and also continued through your deployment. If you can recall, can you elaborate on those write-ups?

**A19 (WITNESS):** Ma'am, at home station I wouldn't be too familiar with that because we are separated into two AMUs. That aircraft belonged to the Red AMU. I am the production superintendent for the Blue AMU. So, they take care of their aircraft. So, I actually started working that aircraft until we got deployed here. So, anything previous to that I would not know too much about. But, while deployed here the oil cooler flap for the number four engine, that was something that kept coming up. We changed numerous parts on it and as far as I know the last maintenance action that was performed for that oil cooler flap was a fix.

**Q20 (MAINTENANCE MEMBER):** Okay. [To the other members of the AIB team.] Are there any other questions on that do you think? [Negative response from the other AIB team members.] All right; thank you, Sergeant W4 .

**A20 (WITNESS):** You are welcome, ma'am.

**Q21 (MAINTENANCE MEMBER):** All right. One more question back on the elevator. Do you know whether or not that elevator was the original factory installed elevator boost pack?

**A21 (WITNESS):** I would not have any idea or anything about that elevator, ma'am. We did not have any issues with the elevator.

**Q22 (MAINTENANCE MEMBER):** Okay. No problem there. And, lastly; you were the pro-super that signed the exceptional release, correct, on the flight of 3174?

**Q22 (WITNESS):** Yes, ma'am.

**Q23 (MAINTENANCE MEMBER):** Now, we have a copy without a signature on it. I'm assuming that the ER was left in the forms in the mishap aircraft, correct?

**A23 (WITNESS):** Say again, ma'am. You broke up throughout half of that sentence. I only got half of it, ma'am.

**Q24 (MAINTENANCE MEMBER):** Okay. The exceptional release that you signed, is the forms for that – were those left on the aircraft – on the mishap aircraft?

**A24 (WITNESS):** Yes, ma'am. The exceptional release that I usually sign before flight would be with the aircraft forms, which stay on the aircraft.

**Q25 (MAINTENANCE MEMBER):** That's what we thought. All right. I don't have any more questions for you. But, General Mordente does.

**Q26 (BOARD PRESIDENT):** Sergeant W4 , this is General Mordente. How are you doing this morning?

**A26 (WITNESS):** Good, sir.

**Q27 (BOARD PRESIDENT):** I know that these are tough times. I just want to thank you once again for coming in and speaking with the team here. Your testimony and the testimony of others is very important to our report. So, I just want to thank you for taking the time.

**A27 (WITNESS):** No problem, sir.

**(BOARD PRESIDENT):** That's all I have.

**Q28 (LEGAL ADVISOR):** This is Lieutenant Colonel AIB/LA again. Is there anything else you would like to add?

**A28 (WITNESS):** No, ma'am.

**(LEGAL ADVISOR):** All right, I just have one final paragraph to read and then it will conclude your interview.

## READOUT

**(LEGAL ADVISOR):** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore,

please keep the legal office there informed if you are going to rotate back to the states for any reason prior to planned departure date. At this point, this concludes the interview. Thank you so much for your time.

Non-Privileged Witness Statement (Reference AFI 91-204, attachment 3)

Witness 4

Date 02 Oct 2015

I, I. (Name of Witness) \_\_\_\_\_, (Grade) E7 (Organization) 455 EAMXS have been advised by (Name of Investigator) \_\_\_\_\_ ISB/I \_\_\_\_\_ of the following:

- a. This investigation is being conducted under the provisions of AFI 91-204 solely for the purpose of mishap prevention within the United States Air Force and to determine all factors relating to the mishap in order to prevent recurrence. I understand I am being interviewed as a witness in a mishap investigation and I acknowledge that a promise of confidentiality has not been extended to me.
- b. This witness statement may be released to the public pursuant to a Freedom of Information Act request.
- c. The chain of command will review the final mishap report.

SIGNED

Witness Signature Block

On October 1, 2015 I was on duty as the Production Superintendent. During my shift my flightline workers prepared aircraft 3174 for its flight. A 15 day flap lube was performed along with refueling and a walk around inspection. I also performed a walk around and reviewed aircraft forms prior to signing the exceptional release. The aircraft later took flight and returned to base with a bird strike to the left nose radome. A thorough walk around inspection was performed to the exterior of the aircraft to include all four engines for any evidence of bird strike other than the nose radome. When all inspections and walk around was complete, I again reviewed the aircraft forms and signed another exceptional release. The aircraft once again took flight. Shortly after our shift ended.

SIG

Production Superintendent

**V4. VERBATIM TESTIMONY OF MSGT** Witness 9

**VERBATIM TESTIMONY OF  
MASTER SERGEANT** Witness 9

**LEGAL ADVISOR:** Good evening. My name is Lieutenant Colonel AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board (AIB) is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board (SIB) will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** I do.

**LEGAL ADVISOR:** Okay. I also have to inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** I do.

**LEGAL ADVISOR:** And, is there anyone else present with you right now?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** And, is that Captain and Technical Sergeant ?

**WITNESS:** That is correct.

**LEGAL ADVISOR:** Okay; can you put Captain on the phone, please?

**WITNESS:** Yes, ma'am.

**CAPTAIN** : Captain .

**LEGAL ADVISOR:** Can you confirm that Master Sergeant W9 is who he says he is?

**CAPTAIN** : Yes, ma'am. I have viewed his CAC card and his uniform states his name and rank as well.

**LEGAL ADVISOR:** Okay. Thank you. Please put him back on the phone.

**CAPTAIN** : Yes, ma'am.

**WITNESS:** Sergeant W9 .

**LEGAL ADVISOR:** Your testimony in this investigation will be under oath. At this time, I will administer the oath. If you would please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** I do.

**LEGAL ADVISOR:** Okay. Go ahead and put your hand down. Thank you.

Today is the 23rd of November. The time is now 0910 Central Standard Time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Master Sergeant W9 ; Lieutenant Colonel AIB/LA , the legal advisor; Brigadier General Patrick Mordente, the board president; Lieutenant Colonel AIB/PSME , the pilot subject matter expert; Lieutenant Colonel AIB/MX , the maintenance member; Captain AIB/PM , the pilot member; Master Sergeant AIB/LM , the loadmaster member.

**Q1 (LEGAL ADVISOR):** All right, Sergeant W9 can you please state your full name and rank?

**A1 (WITNESS):** Master Sergeant W9 .

**Q2 (LEGAL ADVISOR):** And, what is your current job title?

**A2 (WITNESS):** I am the 774 Expeditionary Airlift Squadron Superintendent.

**Q3 (LEGAL ADVISOR):** And, how long have you been in that job title?

**A3 (WITNESS):** Since September.

**Q4 (LEGAL ADVISOR):** Okay, and what is your current unit of assignment and location?

**A4 (WITNESS):** Do you want the home or deployed?

**Q5 (LEGAL ADVISOR):** Deployed first.

**A5 (WITNESS):** 774 Expeditionary Airlift Squadron.

**Q6 (LEGAL ADVISOR):** Where is that located?

**A6 (WITNESS):** Bagram Air Force Base.

**Q7 (LEGAL ADVISOR):** And, where is your home station?

**A7 (WITNESS):** It is the 39th Airlift Squadron at Dyess Air Force Base, Texas.

**Q8 (LEGAL ADVISOR):** Are you familiar with the C130J accident that occurred on 2 October 2015?

**A8 (WITNESS):** I am.

**LEGAL ADVISOR:** At this time, I am going to turn the questions over to Master Sergeant AIB/LM , who is our loadmaster member.

**Q9 (LOADMASTER MEMBER):** Hey, Sergeant W9 , Sergeant AIB/LM . How are you doing today, sir?

**A9 (WITNESS):** I'm doing fine.

**Q10 (LOADMASTER MEMBER):** I will try and keep this short and sweet for you. We are looking through some of the transcripts of the crew and their interaction with each other and we want to know, from the loadmaster superintendent's perspective, do you know, were there any known recommended devices or techniques being used right now in the 774 – or 772 to hold the control yoke back during an engine running off load or on load?

**A10 (WITNESS):** To my knowledge there is no techniques, there are no procedures out there for that.

**Q11 (LOADMASTER MEMBER):** Okay. So, you don't know of any guys who sit around talking around the campfire kind of a deal, about "Hey, we did this; this is what we did on this one. We had a high profile cargo and we needed to get the elevators out of the way, and this is how we accomplished it."

**A11 (WITNESS):** I have heard from a loadmaster perspective that we have asked the elevators to be pulled back. But, as far as to the front end, I can't speak to that.

**Q12 (LOADMASTER MEMBER):** Are you guys doing that quite a bit?

**A12 (WITNESS):** It is not very often, no.

**Q13 (LOADMASTER MEMBER):** Okay; all right. I am going to turn the questions over more to the loadmasters themselves. I will start with, first, Sergeant ML1 . Was he current and qualified for the mission that was flown that night?

**A13 (WITNESS):** He was.

**Q14 (LOADMASTER MEMBER):** Okay. How would you say he ranked against his peers over there in the desert right now?

**A14 (WITNESS):** He was one of the top.

**Q15 (LOADMASTER):** He was one of the top, okay.

**A15 (WITNESS):** Definitely in the top two or three.

**Q16 (LOADMASTER MEMBER):** Okay. Did you have any known issues with him, disciplinary or otherwise?

**A16 (WITNESS):** No issues.

**Q17 (LOADMASTER MEMBER):** No issues. Okay, and what was his projected upgrade timeline, as far as him going to instructor school, had you guys identified him or how was that whole process going?

**A17 (WITNESS):** We had just identified him for instructor school. He was slated to go around April of next year.

**Q18 (LOADMASTER MEMBER):** All right, sir. I'm going to switch over to Senior Airman ML2 now. Was he current and qualified for the mission as well?

**A18 (WITNESS):** He was.

**Q19 (LOADMASTER MEMBER):** Okay; and, how would you say he ranked against his peers?

**A19 (WITNESS):** He was also in the top; the top five.

**Q20 (LOADMASTER MEMBER):** In the top five, okay. Did you have any known disciplinary or otherwise issues with Senior Airman ML2 ?

**A20 (WITNESS):** No issues.

**Q21 (LOADMASTER MEMBER):** Okay, and what about his projected upgrade timeline for Senior Airman ML2 ?

**A21 (WITNESS):** He was also just selected. We were going to upgrade him after Sergeant ML1 , probably summertime of next year.

**Q22 (LOADMASTER MEMBER):** Summer – okay. So, summer of 2016?

**A22 (WITNESS):** Yes.

**Q23 (LOADMASTER MEMBER):** Now, I looked back – because they had you right out of a quick, you know, description of both of those. We understand that there was some kind of confrontation with the crew at the chow hall that night about something over sandbags? Do you recall that?

**A23 (WITNESS):** I do recall that.

**Q24 (LOADMASTER MEMBER):** Can you elaborate more on what happened to the best of your knowledge?

**A24 (WITNESS):** The requirement here at Bagram is to fill sandbags, six a day. On that evening, I just finished my shift. I had gone to the chow hall. They were having lunch – or having dinner before their flight. Senior Airman ML2 mentioned that he did not fill them, and somebody had stopped him. That was the only issue. So, he didn't fill his two sandbags before he went to eat.

**Q25 (LOADMASTER MEMBER):** So, was he the only one on the crew that didn't fill his sandbags? I guess the reason I'm asking is because when you wrote down, you know, how you described both of them, you had mentioned that he had a confrontation at the chow hall for ML2 . But, you didn't mention it for ML1 . I just assumed at that point the whole entire crew – but, was it just Senior Airman ML2 not filling the sandbags?

**A25 (WITNESS):** I believe it was the entire crew; however, Senior Airman ML2 is the one that brought it to my attention.

**Q26 (LOADMASTER MEMBER):** So, he was just kind of making sure that his leadership knew what was going on?

**A26 (WITNESS):** Yes. He just wanted to make sure because they had taken his name down and what did come out, that did end up at my commander's desk, was that he was trying to prevent –

**Q27 (LOADMASTER MEMBER):** Okay, when you say “they,” who is “they?”

**A27 (WITNESS):** Umm, I'm not too sure. There was another master sergeant, the one that took his name. I do not know who that is.

**Q28 (LOADMASTER MEMBER):** Is this an Army requirement or an Air Force requirement?

**A28 (WITNESS):** This is for the Army, but the Air Force has their requirement.

**LOADMASTER MEMBER:** All right, sir. I have no other further questions for you, and I appreciate all of your time this evening.

**Q29 (BOARD PRESIDENT):** Sergeant W9 , this is General Mordente, how are you doing?

**A29 (WITNESS):** I'm doing good, sir.

**Q30 (BOARD PRESIDENT):** Hey, with Senior Airman ML2 , what was his demeanor? When he was letting you know that this altercation – did he seem upset by it or was it a matter of “Hey, I just want you to know that a master sergeant took my name down.” Did he seem flustered by it?

**A30 (WITNESS):** He was definitely not flustered with it. He just happened to see me. He wanted to give me a heads up.

**Q31 (BOARD PRESIDENT):** All right. I appreciate that and I just want to add on, you know, this is understandably a very tough time for you and the unit. And, I just want to thank you for taking the time to talk to us this morning. Nighttime, your time, morning here, but I just want you to know that your testimony and the testimony of others is very helpful for us as we bring this report together. So, again, thank you for taking the time.

**A31 (WITNESS):** Yes, sir.

**Q32 (LEGAL ADVISOR):** And, this is Lieutenant Colonel AIB/LA again. Is there anything else you would like to add?

**A32 (WITNESS):** No, ma’am.

**LEGAL ADVISOR:** Okay. I just have one more paragraph to read before we conclude.

### **READOUT**

**LEGAL ADVISOR:** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore, please let us know, or please let the legal office know there, if you are going to rotate back to the states ahead of your prior redeployment date. And, that concludes the interview.

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**V5. VERBATIM TESTIMONY OF MAJ**

Witness 1

**VERBATIM TESTIMONY OF**

**MAJOR**

Witness 1

**LEGAL ADVISOR:** My name is Lt Col AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes.

**LEGAL ADVISOR:** I must inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes.

**LEGAL ADVISOR:** And, is the JAG team still with you there in the room?

**WITNESS:** They are.

**LEGAL ADVISOR:** Okay and that consists of Captain and Technical Sergeant ?

**WITNESS:** It is Staff Sergeant .

**LEGAL ADVISOR:** Okay. And, can you put Captain on the phone please?

**WITNESS:** Sure; one moment please.

**LEGAL ADVISOR:** Thank you.

[The witness complied with the AIB/LA's request.]

**CAPTAIN** : Captain .

**LEGAL ADVISOR:** Hi, Captain , can you confirm that Major W1 is who he says he is?

**CAPTAIN** : Yes, ma'am. I've viewed is CAC card and his uniform states his name and rank as well.

**LEGAL ADVISOR:** Okay; thank you.

**CAPTAIN** : Yes, ma'am; thank you.

**WITNESS:** Okay, I'm back.

**LEGAL ADVISOR:** All right. Your testimony in this investigation will be under oath. At this time, I will administer the oath. Please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** I do.

**LEGAL ADVISOR:** Okay; thank you. Go ahead and put your hand down.

Today is the 23rd of November 2015. The current time is 0923 central standard time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Major W1, Lieutenant Colonel AIB/LA, the legal advisor, the board president Brigadier General Patrick Mordente, the pilot subject matter expert, Lieutenant Colonel AIB/PSME, the maintenance member, Lieutenant Colonel AIB/MX, the pilot member, Captain AIB/PM, the loadmaster member, Master Sergeant AIB/LM.

**Q1 (LEGAL ADVISOR):** Major W1, can you please state your full name and rank?

**A1 (WITNESS):** Yes, my name is Major W1.

**Q1 (LEGAL ADVISOR):** What is your current job title?

**A1 (WITNESS):** I am the 774 ADO, acting DO.

**Q2 (LEGAL ADVISOR):** Okay and DO is Director of Operations?

**A2 (WITNESS):** Yes, ma'am.

**Q3 (LEGAL ADVISOR):** And what is your current deployed unit of assignment and location?

**A3 (WITNESS):** 774 Expeditionary Airlift Squadron, Bagram Airfield, Afghanistan.

**Q4 (LEGAL ADVISOR):** What is your home unit of assignment and location?

**A4 (WITNESS):** 39th Airlift Squadron, Dyess Air Force Base, Texas.

**Q5 (LEGAL ADVISOR):** Okay, and did you deploy with the squadron over to Afghanistan in early September 2015?

**A5 (WITNESS):** I did.

**Q6 (LEGAL ADVISOR):** And you are familiar with the 2 October 2015 mishap?

**A6 (WITNESS):** Yes.

**Q7 (LEGAL ADVISOR):** At this time I am going to turn it over to Captain AIB/PM to ask you some questions.

**Q8 (PILOT MEMBER):** Okay; Major W1 , Captain AIB/PM . Were you on duty for the crew alert and step on 1 October?

**A8 (WITNESS):** Yes, I was.

**Q9 (PILOT MEMBER):** Can you just walk us through the typical crew alert and step process for the 774?

**A9 (WITNESS):** So, the crew alerts an hour – or three hours prior to takeoff. Prior to the alert time, I call over to AMD, after reviewing pertinent mission information like weather, NOTAMS, and other things, and I will get positive alert from execution officer at AMD. When I get positive alert through them – approval, then we will notify the crew. In this case, due to local limitations, we will have the crew call us at alert time to verify they are alerted. And, I will say, “Yes, you are alerted.” So, an hour later is their show time at two hours prior to take off. And, when they show, usually the first thing they will do is they will drop their gear outside of our building, and they will go to the – they will get the sign in binder and they will go to the mission briefing room and the crew will fill out the ORM sheet, the sign in sheet, and then they will get an intel brief and a tactics brief. Following that the loadmasters are usually released to go to flight equipment, and then they will proceed out to the aircraft to start the preflight and load the aircraft. The pilot will continue the tactics brief and check out COMSEC, get any step notes from the duty operations officer, and then they will step and go to flight equipment and then proceed to the aircraft. That is a basic rundown, I think, of the alert and show process.

**Q10 (PILOT MEMBER):** Okay. Thank you, and to the best of your knowledge did the mishap crew follow this process?

**A10 (WITNESS):** To the best of my knowledge, yes.

**Q11 (PILOT MEMBER):** Do you know of any deviations or issues from what you just described and what they did the evening of 1 October?

**A11 (WITNESS):** I don’t know of any deviations. And, issues – just a couple – a minor issue just prior to arriving here while they were at the dining facility with a couple of the crew members. But, that was it.

**Q12 (PILOT MEMBER):** And, just to confirm, that’s the failure to fill sandbags?

**A12 (WITNESS):** That is correct.

**Q13 (PILOT MEMBER):** Awesome. Okay; as far as the timeline for the mishap crew on 1 October, did they show two hours prior or were they early, late?

**A13 (WITNESS):** At this point I don’t remember for sure. I believe they showed on time, about two hours prior.

**Q14 (PILOT MEMBER):** Then, can you recall any specific concerns for the flight that evening? Like weather or anything that you would have talked to the crew about before they stepped out?

**A14 (WITNESS):** I have been trying to remember. I think the one thing – I talked about the aircraft commander was that there was maybe some weather – actually I don’t remember if it was low ceilings or thunderstorms. But, I do remember talking with him about weather at one of his destinations. But, I mean, he had reviewed it with me. We talked about it together, but I believe that was all we discussed.

**Q15 (PILOT MEMBER):** So, discussed weather at one destination that evening – I think he was fragged, Jalalabad, Bagram, Kabul, and Kandahar. Do you know which destination?

**A15 (WITNESS):** Oh, yes; it was Kabul. And, besides that he also talked to me about the incident back at the dining hall with the sandbags, he just wanted me to be aware of it, that’s all.

**Q16 (PILOT MEMBER):** Okay. The crew then took off for the first sortie, had a bird strike on takeoff; were you on the ground when the crew came back in for the half-time for the bird strike inspection?

**A16 (WITNESS):** Yes, I was.

**Q17 (PILOT MEMBER):** And how did the crew seem after that?

**A17 (WITNESS):** I just saw the pilots that came in. He just informed me that he had a bird strike. I want to say it was on the left side of the radome, but I don't remember. I think it was the left side of the radome, and he said that maintenance was looking at it, and he was just going to inform me. We talked about it, okay, said he was going to head back out, and it sounded like the inspection was going to be fairly quick and they were going to proceed and if they had a problem he would give me a call on the radio. So...that was it.

**Q18 (PILOT MEMBER):** Then, did he end up calling you on the radio prior to departing Bagram with any other issues?

**A18 (WITNESS):** I don't remember. I don't recall that. I don't think so. But, I can't say for sure.

**Q19 (PILOT MEMBER):** All right, moving onto some more specifics about the crew. To the best of your knowledge was Captain <sup>MP</sup> current and qualified for the mission to be flown that night?

**A19 (WITNESS):** Yes.

**Q20 (PILOT MEMBER):** How would you rank Captain <sup>MP</sup> against his peers?

**A20 (WITNESS):** He was amongst his peers probably one of the top, if not the top, in his peer group.

**Q21 (PILOT MEMBER):** Okay. Do you know if he was having any issues that evening that you were aware of?

**A21 (WITNESS):** No, not that I am aware of.

**Q22 (PILOT MEMBER):** This might be outside of your of your scope, but do you know the projected upgraded timeline for Captain <sup>MP</sup> ?

**A22 (WITNESS):** I'm sorry, can you repeat that, please?

**Q23 (PILOT MEMBER):** Do you know the projected upgrade timeline for him to IP?

**A23 (WITNESS):** Not specifically, no. I mean, I wouldn't be surprised if it would have been in the next six months.

**Q24 (PILOT MEMBER):** Okay –

**A24 (WITNESS):** After we returned. So...

**Q25 (PILOT MEMBER):** So, for Captain <sup>MCP</sup> , was he current and qualified for the mission to be flown that night?

**A25 (WITNESS):** Yes.

**Q26 (PILOT MEMBER):** All right; then, how would you rank Captain <sup>MCP</sup> against his peers?

**A26 (WITNESS):** I think he was probably average. I know at one point, previously he was a little bit behind in hours. But, we were aware of that and trying to – trying to remedy that and make sure that he was able to get more hours. But, he was a very strong tactician from the - our tactics office back home.

**Q27 (PILOT MEMBER):** Any noted issues with Captain <sup>MCP</sup> that evening?

**A27 (WITNESS):** Not that I'm aware of. I'm not sure if I spoke with him more than just a few words. So, I don't think so.

**Q28 (PILOT MEMBER):** Are you aware of the projected upgrade timeline for him to aircraft commander?

**A28 (WITNESS):** No I'm not.

**Q29 (PILOT MEMBER):** How many fields in country would you say normally require adjusted max effort procedures?

**Q29 (WITNESS):** That can kind of depend on the situation. But, of the ones that we typically get, that we've been to, I would say one at least for this deployment that I know of.

**Q30 (PILOT MEMBER):** Okay, so it is relatively rare you would say?

**A30 (WITNESS):** Relatively, yes. It's been more common in the past, but not used as much this time.

**Q31 (PILOT MEMBER):** All right. Then, if you can say, which field normally does require AMAX procedures?

**A31 (WITNESS):** Max effort anyway, AMAX, MAX effort, it would be .

**Q32 (PILOT MEMBER):** Okay. Would you say, is it a –

**A32 (WITNESS):** I'm sorry, go ahead.

**Q33 (PILOT MEMBER):** Is it a normal practice to conduct AMAX takeoffs if it is not required by TOLD, as in your critical field length does meet the critical takeoff criteria?

**A33 (WITNESS):** I would say no. But, there have been some other factors that the pilots take into account. Generally not, but it is not out of the possibilities.

**Q34 (PILOT MEMBER):** As far as those other factors, can you discuss those, or would we need to get on a line for that?

**A34 (WITNESS):** No, I just think if there are obstacles or something else, maybe the pilot wanted to depart sooner, get a higher altitude for the departure end – right off the top of my head I can't think of anything. But...

**Q35 (PILOT MEMBER):** Okay, no worries. Thank you. All right, that kinds of cleans up that last question there. All right; last question. Do you know of any known or recommended devices or techniques used to hold the control yoke back during an engine running offload if the loadmaster has asked the elevator to be raised?

**A35 (WITNESS):** No, only what I've heard afterwards. But, I haven't heard of anything otherwise.

**(LEGAL ADVISOR):** Hold on one second, please.

MICROPHONE MUTED.

BACK ON THE RECORD.

**Q36 (BOARD PRESIDENT):** Hey, major, this is General Mordente; how are you doing?

**Q36 (WITNESS):** I'm doing fine, sir.

**Q37 (BOARD PRESIDENT):** Hey, I'm sorry. We went on mute there for a minute just to discuss some issues here. I know you are well aware of the privilege that a SIB has and I know Colonel AIB/LA discussed the difference between a SIB and an AIB. So, we are being very careful here based off of your last statement in reference to the fact that you said "post," which leads us to believe there might be some discussions going on in the squadron. What I really want to do is, to the best of your knowledge, prior to this incident, was there any discussions among crew about when a loadmaster asked you to raise the elevator due to high profile cargo, if

there were any techniques, methods, any discussion prior to this incident within the squadron on how that would be conducted?

**A37 (WITNESS):** I have not heard of anything like that, and I'm not aware of any other techniques.

**(BOARD PRESIDENT):** That's what we wanted to ask, and I think that answers our questions. Are you good with that response AIB/PM?

**(PILOT MEMBER):** (affirmative response.)

**(BOARD PRESIDENT):** Yeah. So hey, I appreciate that. Was that your last question, AIB/PM?

**(PILOT MEMBER):** I have a couple more.

**(BOARD PRESIDENT):** Okay.

**(LEGAL ADISOR):** We are going to turn it back over to Captain AIB/PM here.

**Q38 (PILOT MEMBER):** A couple more crew related questions. Can you confirm once again, to the best of your knowledge, that the crew processed through AFE after leaving your shop and had all their required pro gear, to include the NVG pelican case?

**A38 (WITNESS):** I didn't see them after they left our step from the Ops desk. I cannot say specifically that I know they had all of their gear. I didn't watch them go out with it.

**Q39 (PILOT MEMBER):** Okay, but can you confirm that that would be the normal process is to proceed to AFE and then get issued the NVGs and other flight equipment?

**A39 (WITNESS):** That is typically what we do here, yes. Once we leave the office to go to AFE and get our helmets, our NVGs, and our weapons, and proceed to the aircraft.

**Q40 (PILOT MEMBER):** One of the crewmembers signed in as a "1" on the ORM sheet. Are you aware of why they may have done that or was it typical?

**A40 (WITNESS):** I don't remember what the reason was for that.

**(PILOT MEMBER):** Okay, no worries.

**Q41 (SUBJECT MATTER EXPERT – SME):** This is Lieutenant Colonel AIB/PSME . Same caveat we gave you with respect to holding the elevator up. But, prior to that, have you ever heard any discussion in the C130J world about alternate recovery from stalls or uncontrolled flight other than what is in the Dash-One?

**A41 (WITNESS):** No, sir.

**Q42 (BOARD PRESIDENT):** Major, this is General Mordente again.

**A42 (WITNESS):** Yes, sir.

**Q43 (BOARD PRESIDENT):** I'm going to ask the obvious question. But, in your opinion, as the crew stepped, in any way did they look not rested, distracted – in other words, as they signed out, to the best of your memory, did they look like the typical crew that was ready to go out and hack an airlift mission?

**A43 (WITNESS):** I felt it seemed routine that night. I didn't have any concern, I guess, as they left.

**(BOARD PRESIDENT):** Okay. That's all I needed and I just want to add on. I know this is a very stressful time for the unit and for all of the individuals involved here. I just want to thank you for taking the time and let

you know that the information that you provide us, along with the testimony of others is very important to the AIB and our ability to bring this report together. So, again, thank you for the time.

**(WITNESS):** Yes, sir.

**(LEGAL ADVISOR):** Hold on one minute. I'm going to mute again just briefly.

MICROPHONE MUTED.

BACK ON THE RECORD.

### **READOUT**

**(LEGAL ADVISOR):** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without my permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore, please inform us if you intend – if you end up rotating back early, apart from the squadron, if you could just let the legal office know over there, that would be fantastic. This concludes this interview.

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**V6. VERBATIM TESTIMONY OF LT COL**      Witness 16

**VERBATIM TESTIMONY OF**

**LIEUTENANT COLONEL**      Witness 16

**LEGAL ADVISOR:** Good evening. My name is Lieutenant Colonel AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board (AIB) is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board (SIB) will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** All right. I must inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** And, is there anyone else present with you right now? Is Captain there still?

**WITNESS:** Captain is here and Sergeant .

**LEGAL ADVISOR:** Okay; if you could please put Captain on the phone real quick?

**WITNESS:** Yes, ma'am.

**CAPTAIN** : Captain .

**LEGAL ADVISOR:** Can you confirm that Lieutenant Colonel W16 is who he says he is?

**CAPTAIN** : Yes, ma'am. I viewed his CAC card and his name and rank is on his uniform.

**LEGAL ADVISOR:** Okay; thank you.

**CAPTAIN** : Yes, ma'am.

**WITNESS:** Lieutenant Colonel W16 .

**LEGAL ADVISOR:** All right, your testimony in this investigation will be under oath. At this time, I will administer the oath. Please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** Yes, ma'am.

**LEGAL ADVISOR:** All right. Go ahead and put your hand down. Today is the 23rd of November 2015. The time is now 0958 Central Standard Time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Lieutenant Colonel W16 ; Lieutenant Colonel AIB/LA , the legal advisor; Brigadier General Patrick Mordente, the board president; Lieutenant Colonel AIB/PSME , the pilot subject matter expert; Lieutenant Colonel AIB/MX , the maintenance member; Captain AIB/PM , the pilot member; Master Sergeant AIB/LM , the loadmaster member.

**Q1 (LEGAL ADVISOR):** And, I know that we have already done this, but if you could please go ahead and state your full name and rank?

**A1 (WITNESS):** Lieutenant Colonel W16 .

**Q2 (LEGAL ADVISOR):** And, what is your current job title?

**A2 (WITNESS):** Currently I am the squadron commander of the 774 EAS.

**Q3 (LEGAL ADVISOR):** And, on the 2nd of –

**A3 (WITNESS):** I deployed –

**Q3 CONTINUED (LEGAL ADVISOR):** Go ahead.

**A3 CONTINUED (WITNESS):** I deployed as the DO for the 774 EAS. But, Colonel W17 had to go home on an emergency leave. So I am now the commander.

**Q4 (LEGAL ADVISOR):** Okay; and, where is your current deployed location?

**A4 (WITNESS):** Bagram Air Force Base, Afghanistan.

**Q5 (LEGAL ADVISOR):** And, what is your home duty of assignment – or unit of assignment, excuse me?

**A5 (WITNESS):** 39th Airlift Squadron, Dyess Air Force Base, Texas.

**Q6 (LEGAL ADVISOR):** And, did you deploy over there with the squadron in early September of 2015?

**A6 (WITNESS):** Yes, ma'am.

**LEGAL ADVISOR:** Okay. And, at this point, I'm going to turn it over to Captain AIB/PM – Oh, hold on one second.

**BOARD PRESIDENT:** Colonel W16 , General Mordente. I just want to confirm back at the 39th you are the DO?

**WITNESS:** Yes, sir.

**BOARD PRESIDENT:** Okay; thank you.

**LEGAL ADVISOR:** At this point, I will turn it over to Captain AIB/PM for questions.

**WITNESS:** Yes, ma'am.

**Q7 (PILOT MEMBER):** Colonel W16 , Captain AIB/PM here. Were you on duty for the crew alert and step on 1 October?

**A7 (WITNESS):** No, sir, I was not.

**Q8 (PILOT MEMBER):** Can you confirm, Senior Airman ML2 --was he flying with the crew prior to 1 October?

**A8 (WITNESS):** Yes, sir. He had been on their hard crew the whole time.

**Q9 (PILOT MEMBER):** Okay. And, had he gone DNIF at any point in time before that?

**A9 (WITNESS):** Not that I'm aware of.

**Q10 (PILOT MEMBER):** With regards to adjust maximum effort takeoffs, how many fields in country would you say normally require AMAX procedures?

**A10 (WITNESS):** There are certain airfields that we don't routinely go to. Are you talking about the ones that we routinely go to or some of the fields they open up on special occasions, sir?

**Q11 (PILOT MEMBER):** I would say the more routine fields. What I am really trying to establish is, is it a rare occurrence or is it something more typical for crews to do an adjust maximum effort takeoff?

**A11 (WITNESS):** It is a rare occurrence, sir, due to the fact that most of the LZs, like the dirt runways of the past, like , that required us to do those, so when we deploy throughout, we try to get as much proficiency done prior to deployment because we expect to not have very many opportunities to maintain that proficiency. So, there are no airfields that we routinely go to that require them.

**Q12 (PILOT MEMBER):** Would you say that it is a normal practice to conduct an AMAX takeoff that is not required by the TOLD? For instance, if your critical field length does meet takeoff criteria?

**A12 (WITNESS):** The only time I would think you might do that is to maintain proficiency.

**Q13 (PILOT MEMBER):** To the best of your knowledge and for what you can say on an unclass line, are there any techniques or factors other than TOLD that would drive a crew to an AMAX takeoff?

**A13 (WITNESS):** TOLD would be the primary reason for doing an AMAX takeoff; TOLD/climb out.

**Q14 (PILOT MEMBER):** All right. Moving on to the individual pilots. How would you rank Captain MP against his peers?

**A14 (WITNESS):** For his year group per se, I would say he was my top pilot.

**Q15 (PILOT MEMBER):** And how about against his peers as an aircraft commander?

**A15 (WITNESS):** He was our sharpest one, sir, hands down. We had instructors that were more experienced than him, but for his age group and where he was going, he was definitely our top pilot, sir.

**Q16 (PILOT MEMBER):** Are you aware of any issues that he was having?

**A16 (WITNESS):** No, sir.

**Q17 (PILOT MEMBER):** Then, what was the projected upgrade timeline for Captain MP to instructor?

**A17 (WITNESS):** Basically when he got back he was going to do his MEFL upgrade and then he was going to go to IP school and we were going to follow that up with going to the WIC. We were planning on sending him to the WIC as soon as we could.

**Q18 (PILOT MEMBER):** Okay. For Captain MCP , how would you rank him against his peers?

**A18 (WITNESS):** For his time in flying, as far as his, you know, seasoning. He was on track. He was an average or slightly above average co-pilot for his time in and for his number of hours for flying a C130.

**Q19 (PILOT MEMBER):** Are you aware of any issues he was having that may have affected his performance that day?

**A19 (WITNESS):** Nothing on that day. He worked tactics prior to the deployment and he got focused on tactics and we didn't notice his hours were falling behind his peers. But, we had addressed that several months prior to deployment and by the time that he came out here he was on track again. So, it was a matter of how many hours per month he was getting.

**Q20 (PILOT MEMBER):** Then, was he in a projected timeline for AC, or was there a projected upgrade timeline for him?

**A20 (WITNESS):** He was on track to upgrade, sir. We didn't have a projected timeline because we generally follow the aging process and he was on track with his peers to upgrade. We didn't see any shortcomings with him.

**Q21 (PILOT MEMBER):** In terms of crews on an engine running offload, are you aware of any known or recommended devices or techniques used to hold the control yoke back, specifically, were you aware of any prior to 1 October?

**A21 (WITNESS):** I was not aware of that. I had never heard of having to do that other than for a short period of time, when which I would use my hands.

**Q22 (PILOT MEMBER):** Okay. In terms of stall recovery procedures, are you aware of any non-standard stall recovery procedures outside of what is in the DASH-1?

**A22 (WITNESS):** I might say my prior experience in other aircrafts might have bled into any technique I might use in the airplane. But, I don't know of any recognized C-130J stall procedures outside of what is in the airplane – or, outside of what is in the DASH-1.

**Q23 (PILOT MEMBER):** So, on the night of 1 October, early morning of 2 October, the crew did a max effort landing into Jalalabad and then an AMAX takeoff. Do you know why they would have done either one of those events to the best of your knowledge?

**A23 (WITNESS):** The only thing I can think of, sir, is if TOLD did not drive the situation, was if the pilot wanted to do a max effort just to maintain his proficiency, that is the only possible thing I can think of. Just as though, for instance, we are deployed here, we've only done two airfields in the two months that we've been here that truly would have required a max effort, unless he decided, "Hey, I want to do this so that I'm not completely cold if I ever have to go to an assault." That would be the only reason I could think of doing it, sir, other than TOLD driving it.

**PILOT MEMBER:** Okay. That's the last of my questions. I am going to hand it over to Lieutenant Colonel AIB/PSME .

**WITNESS:** Yes, sir.

**Q24 (SUBJECT MATTER EXPERT):** This is Lieutenant Colonel AIB/PSME . Were you aware of any incidents in the past where Captain MP might have violated AFI guidance?

**A24 (WITNESS):** No, sir. He was – everything that I've seen with him in the past has been a very knowledgeable person who knew the book probably better than I did, sir.

**SUBJECT MATTER EXPERT:** Great; thanks.

**Q25 (BOARD PRESIDENT):** Lieutenant Colonel W16 , General Mordente. Just one real quick question just to clarify with the loadmaster ML2 . We just noticed a discrepancy in the forms, which could be a matter of just admin catchup. But, from what we could tell on the forms, Senior Airman ML2 last flight was like two weeks prior to the crew's last flight. But, you said they were hard crewed, and that he was not DNIF at any time. So, in your opinion is that just the currency forms having to be logged and inputted and a catchup thing? So, could we, as the board, make a valid assumption that Senior Airman ML2 flew with the crew every time the crew flew?

**A25 (WITNESS):** If he missed a flight, sir, it would be a one-time miss. But, and this happened a month ago, sir. I do not remember him being DNIF at that time or any time prior to that. But, I can verify for you, though, sir.

**Q26 (BOARD PRESIDENT):** No, that's not required. I just wanted you to know why we were asking the question we were asking. Having flown and been in units before, sometimes your currency log sheet, it is just a matter of ARMS putting it in.

**A26 (WITNESS):** Or, they might have misplaced one. I don't know, sir.

**Q26 CONTINUED (BOARD PRESIDENT):** Yeah or something like that.

**A26 CONTINUED (WITNESS):** But, I do not remember – At that time we did not have any of the DNIFs long term DNIF, and especially not two weeks, sir.

**Q27 (BOARD PRESIDENT):** And, you don't pull loadmasters off of crews to do other duties in theater. They're hard crewed. So, either the crew does it together – that kind of thing?

**A27 (WITNESS):** Yes, sir. The DNIF would be the only time. I mean, it might be one or two where somebody has to go to – you know if they get CGO of the quarter, we might work something out. But, that would be the exception to the rule, sir.

**BOARD PRESIDENT:** That is the last question I had. I just want to thank you for your time. I know that this is a very stressful time for you and the unit as a whole. But, realize that your testimony along with others is very helpful as we bring this report together. So again, thank you for taking the time and talking with us today.

**WITNESS:** Sir, anything I can do to help, just let me know, sir.

**BOARD PRESIDENT:** Roger that.

**Q28 (LEGAL ADVISOR):** This is Lieutenant Colonel AIB/LA again. Is there anything else that you would like to add?

**A28 (WITNESS):** No, ma'am.

**LEGAL ADVISOR:** Okay. I just have one final paragraph to read.

### **READOUT**

**LEGAL ADVISOR:** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if necessary. I know we are in pretty good contact with you, but if you could please let us or the JA team there know if you end up having to rotate back soon or leave the Afghanistan area. And, that concludes the interview.

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**V7. VERBATIM TESTIMONY OF CAPT**      Witness 12

**VERBATIM TESTIMONY OF**

**CAPTAIN**      Witness 12

**LEGAL ADVISOR:** Good evening. My name is Lieutenant Colonel      AIB/LA      . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board (AIB) is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board (SIB) will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** I do, yes.

**LEGAL ADVISOR:** All right. And, I have to inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** I do, yes.

**LEGAL ADVISOR:** All right; and, is Captain      and Sergeant      present with you in the room right now?

**WITNESS:** Yes, they are.

**LEGAL ADVISOR:** Okay; and, if you could please put Captain      on the phone?

**WITNESS:** Okay, here you go.

**CAPTAIN**      : Captain

**LEGAL ADVISOR:** Can you please confirm that Captain W12 is who he says he is?

**CAPTAIN**      : Yes, ma'am. I am looking at his CAC card and his uniform has his name and rank.

**LEGAL ADVISOR:** Okay; thank you. If you could please put him back on the phone?

**CAPTAIN**      : Yes, ma'am.

**WITNESS:** I'm back.

**LEGAL ADVISOR:** All right, Captain W12 , your testimony in this investigation will be under oath. At this time, I will administer the oath. Please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** I do.

**LEGAL ADVISOR:** Okay, go ahead and put your hand down. Today is the 23rd of November 2015. The time is now 1018 Central Standard Time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Captain W12 ; the legal advisor, Lieutenant Colonel AIB/LA ; the board president, Brigadier General Patrick Mordente; the pilot subject matter expert, Lieutenant Colonel AIB/PSME ; the maintenance member, Lieutenant Colonel AIB/MX ; the pilot member, Captain AIB/PM ; and the loadmaster member, Master Sergeant AIB/LM .

**Q1 (LEGAL ADVISOR):** And, Captain W12 , I know that we have probably done this already. But, if you could please go ahead and state your full name and rank?

**A1 (WITNESS):** Sure; Captain W12 .

**Q2 (LEGAL ADVISOR):** And, what is your current job title?

**A2 (WITNESS):** Chief of Tactics, 774 EAS.

**Q3 (LEGAL ADVISOR):** And, you are currently deployed to Bagram, Afghanistan?

**A3 (WITNESS):** That's correct.

**Q4 (LEGAL ADVISOR):** How long have you been there?

**A4 (WITNESS):** Since 7 September. Just over two months.

**Q5 (LEGAL ADVISOR):** Okay; and, what is your home unit of assignment and location?

**A5 (WITNESS):** 39th Airlift Squadron, Abilene Texas, Dyess Air Force Base.

**LEGAL ADVISOR:** Aat this time I am going to turn it over to Captain AIB/PM for some questions.

**Q6 (PILOT MEMBER):** Captain AIB/PM speaking. Were you on duty the night of 1 October when Captain MP crew, the mishap crew, was alerted or stepped?

**A6 (WITNESS):** I was acting as the Chief of Tactics, but I was flying that night actually.

**Q7 (PILOT MEMBER):** Okay; so, you were not on duty?

**A7 (WITNESS):** I wasn't; no, I didn't step the crew.

**Q8 (PILOT MEMBER):** Okay. Going in to Jalalabad, what would you say the minimum weather to get into and out of Jalalabad is, keeping it on the low side?

**A8 (WITNESS):** I would have to look back at the card. I remember it being approximately being 2200 and four miles vis. But, without looking at the tac card I can't be certain.

**Q9 (PILOT MEMBER):** So, would you say, just a ballpark, that greater than 5,000 foot ceilings would be well good enough?

**A9 (WITNESS):** Yeah, that's correct, and it's a VFR-only field.

**Q10 (PILOT MEMBER):** With regards to the crew, going into Jalalabad, the crew did a max effort landing. Coming out they did an AMAX takeoff. How many fields in country normally require AMAX procedures to your knowledge? What I'm really getting at there is, is it a –

**A10 (WITNESS):** Can you give me one sec?

**Q10 CONTINUED (PILOT MEMBER):** We are just trying to establish if it is a normal thing or if it is a relatively rare occurrence.

**A10 CONTINUED (WITNESS):** Okay. It's relatively rare.

**Q11 (PILOT MEMBER):** Are you of any techniques or factors other than TOLD that would drive a crew to do an AMAX takeoff or a max effort landing?

**A11 (WITNESS):** Not primarily. There are the tactics of gaining altitude to get the aircraft out of a would be a physics driven reason to do one with climb gradient. But, I don't know of any crews employing that as a tactic.

**PILOT MEMBER:** Okay.

**Q12 (BOARD PRESIDENT):** Captain, this is General Mordente. I have a quick question for you.

**A12 (WITNESS):** Yes, sir.

**Q12 CONTINUED (BOARD PRESIDENT):** Is there any waiver, be it in the \_\_\_\_\_ or in the theater documentation that would allow a first pilot to perform AMAX procedures from the right seat with a non-IP in the left seat?

**A12 CONTINUED (WITNESS):** No, not that I know of, sir.

**Q13 (BOARD PRESIDENT):** Okay. So, the \_\_\_\_\_ or anything like that, there was no waiver that allows – I'm just repeating myself – repeating the question so that I'm clear. There is no waiver in existence that will allow a first pilot to perform an AMAX takeoffs from the right seat with a basic aircraft commander in the left seat?

**A13 (WITNESS):** No, sir; no. I could check on that to be sure. But, I'm certain I haven't seen anything to that effect.

**(BOARD PRESIDENT):** Okay; that answered my question. Thank you.

**(WITNESS):** Okay; yes, sir.

**Q14 (PILOT MEMBER):** Follow-up question to that one, this is Captain AIB/PM again. Are you aware of any crews that are doing that in theater? Is that a normal practice for an FP to do an AMAX takeoff from the right seat?

**A14 (WITNESS):** No; no, I haven't heard of anybody performing AMAX takeoffs from the right seat. Was that the question, from the right seat or from the left seat?

**Q15 (PILOT MEMBER):** Correct; from the right seat.

**A15 (WITNESS):** From the right seat, no I don't know of anybody doing AMAX takeoffs from the right seat. Generally speaking, there are very few fields that require it and usually they are on a case-by-case specific operation basis.

**Q16 (PILOT MEMBER):** All right. That makes sense.

**A16 (WITNESS):** Cool.

**Q17 (PILOT MEMBER):** During an ERO, if the loadmaster asked the front end to hold the control yoke back, are you aware of any known or recommended devices or techniques to keep the controls held back during that ERO?

**A17 (WITNESS):** Nope. I am not aware. Actually that was a new thing to me to hold it back. But, I've heard techniques from other theaters to do so. But, mostly those are all techniques I'm hearing in retrospect of the accident, not prior to.

**Q18 (PILOT MEMBER):** Okay. So, you are saying that prior to 1 October you weren't aware of any of those techniques?

**A18 (WITNESS):** No, I wasn't.

**PILOT MEMBER:** Okay.

**LEGAL ADVISOR:** Hold on one second here.

**WITNESS:** Yes, ma'am.

[The recording is stopped momentarily.]

**LEGAL ADVISOR:** Okay, Captain W12, we are back on here. Sorry about that.

**WITNESS:** Yes, ma'am, no problem.

**Q19 (SUBJECT MATTER EXPERT):** Captain W12, this is Lieutenant Colonel AIB/PSME. You mentioned that you've heard some techniques for holding that yoke back to help the loadmasters out. Can you elaborate on what some of those might be?

**A19 (WITNESS):** Since the accident, since this past week, I've heard techniques from people talking about using the seatbelt to do so, usually momentarily. I think that is the only technique I've heard of.

**Q20 (SUBJECT MATTER EXPERT):** Okay; thank you.

**A20 (WITNESS):** You got it.

**Q21 (PILOT MEMBER):** All right. Captain AIB/PM back on. Are you aware of any nonstandard stall recovery techniques or procedures outside of what is published in the Dash-One?

**A21 (WITNESS):** I'm not, no. I would be making up my own if I came up with any other than what is in the Dash-One and what we learned in pilot training I guess.

**PILOT MEMBER:** All right. I think that is the last of our questions here.

**BOARD PRESIDENT:** Hey captain?

**WITNESS:** Okay.

**BOARD PRESIDENT:** This is General Mordente.

**WITNESS:** Yes, sir.

**BOARD PRESIDENT:** I just want to thank you for taking time with us. I know this is a pretty stressful time for you and the squadron. I just want to tell you that your speaking with us today is extremely helpful in us bringing this report together. So, I appreciate you taking the time, okay?

**WITNESS:** Hey, no problem, sir. I appreciate your help.

**Q22 (LEGAL ADVISOR):** All right. This is Lieutenant Colonel AIB/LA again. Is there anything else you would like to add; the overall catchall question?

**A22 (WITNESS):** No, ma'am. Nothing at this time. But, definitely if I think of anything, yeah.

**LEGAL ADVISOR:** Okay; excellent.

#### **READOUT**

**LEGAL ADVISOR:** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Now, I know while you all are deployed we pretty much know where you are at. But, if you happen to come back to the states early for whatever reason, if you could please contact the legal office there or us here and just let us know what a good contact number would be, that would be appreciated.

**WITNESS:** Yes, ma'am, you've got it.

**LEGAL ADVISOR:** This concludes the interview. Thank you.

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**V8. VERBATIM TESTIMONY OF CAPT**

Witness 6

**VERBATIM TESTIMONY OF**

**CAPTAIN**

Witness 6

**LEGAL ADVISOR:** Good evening. My name is Lieutenant Colonel AIB/LA . We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board (AIB) is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board (SIB). You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yep.

**LEGAL ADVISOR:** Okay. I also have to inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes.

**LEGAL ADVISOR:** Okay. And, I understand that Captain is present with you right now?

**WITNESS:** Yes, he's here.

**LEGAL ADVISOR:** Can you hand the phone to him real quickly?

**WITNESS:** Yeah, sure.

[The witness complied.]

**CAPTAIN** : Captain .

**LEGAL ADVISOR:** Hey, can you just confirm that Captain W6 is who he says he is?

**CAPTAIN** : Yes, ma'am. I viewed his CAC card and his uniform has his name and rank on it.

**LEGAL ADVISOR:** Okay; thank you. Hand the phone back to him, please.

**CAPTAIN** : Yes ma'am.

[Captain complied.]

**WITNESS:** All right; I'm back, ma'am.

**LEGAL ADVISOR:** All right, Captain W6 . Your testimony in this investigation will be under oath. At this time, I will administer the oath. If you would please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** I do.

**LEGAL ADVISOR:** Okay; thank you. Go ahead and put your hand down.

All right. Today is November 24th, 2015. The time is now 0840 local. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Captain W6 ; the legal advisor, Lieutenant Colonel AIB/LA , the board president, Brigadier General Patrick Mordente; the pilot subject matter expert, Lieutenant Colonel AIB/PSME ; the pilot member, Captain AIB/PM ; and the loadmaster member, Master Sergeant AIB/LM .

**Q1 (LEGAL ADVISOR):** All right, Captain W6 , I know we've gone through this a little bit already. But, if you would please state your full name and rank?

**A1 (WITNESS):** W6 ; I'm a captain.

**Q2 (LEGAL ADVISOR):** And, what is your current job title?

**A2 (WITNESS):** I am a pilot.

**Q3 (LEGAL ADVISOR):** Okay. And, were you also the night tactics officer in early October of 2015?

**A3 (WITNESS):** Yes, I was the night tactics chief when the incident occurred.

**Q4 (LEGAL ADVISOR):** Okay. What is your current deployed unit of assignment?

**A4 (WITNESS):** 774 EAS.

**Q5 (LEGAL ADVISOR):** And, that is at Bagram Airfield in Afghanistan?

**A5 (WITNESS):** Yep, Bagram Air Base.

**Q6 (LEGAL ADVISOR):** Okay; and, what is your home station unit and location?

**A6 (WITNESS):** 39th Airlift Squadron, Dyess Air Force Base, Texas.

**(LEGAL ADVISOR):** Okay. At this time, I'm going to turn the questions over to Captain AIB/PM.

**Q7 (PILOT MEMBER):** Hey, Captain W6 , Captain AIB/PM; could you just walk us through the typical process once a crew shows up, specifically the tactics portion of the step process?

**A7 (WITNESS):** Yeah sure. So, a typical crew would show up one hour after alert. Typically we would have all of their stuff laid out on the table for them; the tactics binder, the computer, all of their products should already be stuffed in there, and I don't have the list right in front of me. But, basically everything is ready to go. Usually we deal more with the co-pilot more than anything at first. Their co-pilot would come in, he checks everything out. We answer any questions, and then he would usually go and sign off on his SKL [Secure Key Loader]. We might see the AC a little bit. We know he's around. And, after that, the intel portion

would give their brief and then following intel, brief the entire crew in the briefing room, answer any questions, and we would step them out the door from there.

**Q8 (PILOT MEMBER):** Okay. Then, on the evening of 1 October, would you say – can you walk me through how that night went? Just a narrative for the mishap crew?

**A8 (WITNESS):** It was a standard night. They showed up maybe five minutes early. Pretty much right on time. I talked to Captain MCP for a little while. He signed out all of his stuff. He had like one question, and I don't even remember anymore. It was really typical and they pretty much followed the timeline to the T. Received the standard brief and then they were out.

**Q9 (PILOT MEMBER):** How long would you say it took to get the products checked out?

**A9 (WITNESS):** About 10 minutes overall; just that.

**Q10 (PILOT MEMBER):** Okay; and then, about how long approximately for the briefings?

**A10 (WITNESS):** Oh, 15 or 20 altogether.

**Q11 (PILOT MEMBER):** Did the crew stay behind afterwards to discuss NOTAMs, field conditions, weather – any of that?

**A11 (WITNESS):** Yes, the crew – or the pilots did. The loads were already gone out to the plane.

**Q12 (PILOT MEMBER):** You would say, probably about 10 minutes there, 15, 20?

**A12 (WITNESS):** Yeah, about.

**Q13 (PILOT MEMBER):** Okay. Were you the tactician who actually conducted the crew briefing that evening?

**A13 (WITNESS):** I was.

**Q14 (PILOT MEMBER):** Do you remember any specific items of interest particularly around the Jalalabad region? Did the crew have any concerns? Was there anything in the briefing that was out of the ordinary that you can discuss on the low side?

**A14 (WITNESS):** No, not really because it was about a month into the deployment. They had already been there multiple times. I mean, the first time I probably briefed them we went quite in depth. But, as they had been there three or four times we – not shortened it, but it is a little more abbreviated than when we first showed up. Yeah, they didn't really have any specific questions.

**Q15 (PILOT MEMBER):** Okay. Was there anything in the tactics brief that would have driven the crew to do a max effort landing or an AMAX takeoff outside of typical TOLD?

**A15 (WITNESS):** No.

**Q16 (BOARD PRESIDENT):** Hey, Captain W6, this is General Mordente, how are you doing?

**A16 (WITNESS):** Hey, good, sir. How are you doing?

**Q17 (BOARD PRESIDENT):** I'm doing alright. A couple of quick questions just to clarify. The mission that they were on, would you describe this as a standard channel run where you are doing an out and back, you are picking up opportune cargo, and moving it around theater? Or, was this a more planned mission where the cargo was known?

**A17 (WITNESS):** Ah, I think it was pretty much a channel, sir. I don't remember off the top of my head. I'm sorry.

**Q18 (BOARD PRESIDENT):** So basically they were just kind of doing a round robin, hitting a few bases and moving cargo throughout the theater?

**A18 (WITNESS):** Yes, sir.

**Q19 (BOARD PRESIDENT):** Is that how you would describe it?

**A19 (WITNESS):** Yes.

**Q20 (BOARD PRESIDENT):** Can you give me your thoughts on the demeanor of the crew? I mean, was this a – anything you noticed about the crew that might have been odd? I've heard you say that this was a very typical, very straightforward brief. They had been there in the past. Did the crew look, in your opinion, like a regular crew that was ready to go out and do a mission? Or, was there anything that caught your attention other than that?

**A20 (WITNESS):** No, sir. They were a typical crew, a typical day. Nothing really stood out. I mean, I really liked MP . He was always happy and he was happy that day anyways.

**Q21 (BOARD PRESIDENT):** Okay. So, it didn't sound like – In your opinion, the crew didn't seem distracted in any way? It was just another day at the office, going to strap on the airplane and go fly a trash haul mission, right?

**A21 (WITNESS):** Yes, sir. That is totally correct.

**BOARD PRESIDENT:** Okay. I think that Captain AIB/PM has another question.

**Q22 (PILOT MEMBER):** Hey, Captain W6 , Captain AIB/PM again. Were you also on duty when the crew came back in for halftime, after the bird strike?

**A22 (WITNESS):** I was.

**Q23 (PILOT MEMBER):** How long would you say they stayed in the Ops building over that time?

**A23 (WITNESS):** I honestly don't remember MCP being there. MP came in – I just saw him. He more talked to the Ops supt. I mean, he poked his head in and we talked for a minute or two, and then he was gone.

**Q24 (PILOT MEMBER):** Okay, and the same thing there, nothing unusual, didn't seem concerned about him being there?

**A24 (WITNESS):** No.

**BOARD PRESIDENT:** Captain W6 , Master Sergeant AIB/LM , our loadmaster on the team has a question for you.

**WITNESS:** Yeah, how are you doing?

**LOADMASTER MEMBER:** Pretty good, sir. How are you doing?

**WITNESS:** Good.

**Q25 (LOADMASTER MEMBER):** Hey, do you happen to remember the cargo they were taking out of Bagram into Jalalabad that night?

**A25 (WITNESS):** I don't; I'm sorry.

**LOADMASTER:** Okay. That's all I wanted to know.

**BOARD PRESIDENT:** Captain W6 , this is General Mordente again. I know this is a stressful time for you and the unit. I just want to thank you for taking the time and answering our questions for us. You're testimony and those of others is extremely helpful in helping us capture what happened and kind of the overall picture of things. So, again, I know it is stressful, but thank you for taking the time.

**WITNESS:** Yes, sir, no problem.

**Q26 (LEGAL ADVISOR):** All right, and this is Lieutenant Colonel AIB/LA again. Just one catchall question, is there anything else that you would like to add that you think is important for us to know?

**A26 (WITNESS):** No, ma'am, I can't think of anything.

**LEGAL ADVISOR:** Okay. And, one final paragraph that I have to read to you.

### **READOUT**

**LEGAL ADVISOR:** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without our permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if necessary. Therefore, please if you are going to depart the AOR earlier than planned, if you could just let the legal office know. I think we have a pretty good way of reaching you while you are over there. But, at this point, that concludes the interview.

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**V9. VERBATIM TESTIMONY OF SSGT**

Witness 27

**VERBATIM TESTIMONY OF  
STAFF SERGEANT**

Witness 27

**BOARD PRESIDENT:** My name is Brigadier General Patrick Mordente. We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad Airfield, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes.

A safety investigation was previously conducted on this accident. You did not provide testimony or a statement to the safety investigation. Your sworn testimony to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand how your testimony before the accident board may be used?

**WITNESS:** Yes.

**BOARD PRESIDENT:** I must inform you that this interview is being recorded, and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes.

**BOARD PRESIDENT:** Okay, at this time, I'd ask that you put Captain \_\_\_\_\_, the JAG, on the phone.

**CAPT \_\_\_\_\_:** This is Captain \_\_\_\_\_.

**BOARD PRESIDENT:** Captain \_\_\_\_\_, this General Mordente. How are you doing?

**CAPT \_\_\_\_\_:** Good, sir. How are you?

**BOARD PRESIDENT:** I'm doing well, thank you. Could you please confirm that the individual standing next to you in fact is SSgt \_\_\_\_\_ W27 \_\_\_\_\_?

**CAPT \_\_\_\_\_:** Yes, sir, that is confirmed by his DoD identification card.

**BOARD PRESIDENT:** Okay. Thank you very much. If you could put him back on the phone, and if you could leave the room, please?

**CAPT \_\_\_\_\_:** Yes, sir. Have a good day.

**BOARD PRESIDENT:** Thank you.

**WITNESS:** Hello, sir.

**BOARD PRESIDENT:** Thank you for being back on. Okay, Sergeant W27, I'm about to administer you the oath.

**WITNESS:** Okay.

**BOARD PRESIDENT:** Your testimony in this investigation will be under oath. At this time, I will administer the oath. Please raise your right hand. Do you solemnly swear or affirm that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth so help you God?

**WITNESS:** Yes, sir.

**BOARD PRESIDENT:** Thank you. You can put your hand down now. Today is the 2nd of December 2015, the time now on my watch is 1414 local time, and that's local for Scott Air Force Base. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are: the witness, SSgt W27, the legal advisor, Lt Col AIB/LA, the pilot subject matter expert, Lt Col AIB/PSME, the pilot member, Captain AIB/PM, the loadmaster member, MSgt AIB/LM, and me, the board president. The witness has been sworn. So at this time, I'd like to hand the questions over to Captain AIB/PM. Go ahead.

**Q1 (PILOT MEMBER):** Can you please state your full name and rank?

**A1 (WITNESS):** W27, Staff Sergeant.

**Q2 (PILOT MEMBER):** And how long have you been in the military?

**A2 (WITNESS):** Seven years.

**Q3 (PILOT MEMBER):** What is your current job title?

**A3 (WITNESS):** Aircrew flight equipment craftsman.

**Q4 (PILOT MEMBER):** And what is your current unit of assignment and location, and if you're deployed, start with your deployed unit.

**A4 (WITNESS):** 317th OSS, Dyess Air Force Base. I was with the 774 EAS in Afghanistan.

**Q5 (PILOT MEMBER):** All right, and how long have you been at this unit?

**A5 (WITNESS):** I've been with the unit for about ten months, sir.

**Q6 (PILOT MEMBER):** Okay, and you were with the 774th on the night of 1 October?

**A6 (WITNESS):** Yes, sir.

**Q7 (PILOT MEMBER):** Were you on duty for the crew step for Captain MP crew that night?

**A7 (WITNESS):** Yes.

**Q8 (PILOT MEMBER):** Okay, what is the normal process when crews arrive to the aircrew flight equipment building?

**A8 (WITNESS):** Usually, first they step and they pick their helmets up from their lockers. Then they step to the other building to get issued NVGs, C-cells, to preflight their NVGs as well, and to arm up, sir.

**Q9 (PILOT MEMBER):** And the NVGs, are they handed out in a -- how would you describe the case the NVGs are in?

**A9 (WITNESS):** They're in a pelican case.

**Q10 (PILOT MEMBER):** Do you know the approximate dimensions of that case?

**A10 (WITNESS):** No, sir.

**Q11 (PILOT MEMBER):** On the night of 1 October when Captain MP came through, can you just walk me through what you remember, the crews' process being that evening?

**A11 (WITNESS):** They came through. We had talked about where they were going at first, and Captain MP had picked up his NVGs. He had went to go preflight them, then he had armed up, then he had left, and the other Captain that came in picked up NVGs, preflighted, then armed up as well. Then there should have been a load that came in as well. Then I talked to Airman <sup>ML2</sup> and he got his NVGs, preflighted, and armed up as well.

**Q12 (PILOT MEMBER):** Okay, and when the crew came through, did the loadmasters come through first, followed by the pilots?

**A12 (WITNESS):** No, the loads came through first.

**Q13 (PILOT MEMBER):** Did any of the actions of the crew members give you cause for concern that night?

**A13 (WITNESS):** No.

**Q14 (PILOT MEMBER):** It just seemed like a normal night, ready to go fly?

**A14 (WITNESS):** Yes.

**Q15 (PILOT MEMBER):** Okay, and then just to confirm, they did check out all the equipment you described earlier, so everybody took their C-cells and NVGs, armed up?

**A15 (WITNESS):** Yes.

**Q16 (PILOT MEMBER):** Okay, and then on that NVG case, can you confirm that that pelican case is a hard shell black case?

**A16 (WITNESS):** Yes.

**Q17 (BOARD PRESIDENT):** Okay, Sergeant W27 , this is General Mordente again. I'm going to ask, does anyone else in the room have any further questions, and they don't. Okay, so do you know of anyone else who might have information that the accident investigation would find helpful in our investigation?

**A17 (WITNESS):** No, sir, because I was the only one on shift that was the last ones, I guess, to talk with them before they departed Bagram.

**Q18 (BOARD PRESIDENT):** Okay, thank you. Are there any documents, reports, or other evidence we might find helpful in our investigation?

**A18 (WITNESS):** None that I know of, sir.

**Q19 (BOARD PRESIDENT):** That's fine. Are there any other matters that we haven't covered that you believe may be important to our investigation?

**A19 (WITNESS):** No, sir.

**BOARD PRESIDENT:** Then finally, you're reminded of the official nature of this interview. You may not discuss your testimony with anyone without my permission at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore, please inform us if you intend to depart the Dyess area. So, if you're going to go on leave, if you have to re-deploy back in, just let us know and you can do that through your squadron and group leadership to get a hold of us.

**WITNESS:** Okay.

**BOARD PRESIDENT:** Okay? And again, I just want to thank you for taking the time out to speak with us today, and this concludes the interview.

**V10. VERBATIM TESTIMONY OF  
LT COL**

Witness 17

**VERBATIM TESTIMONY OF**

**LT COL**

Witness 17

**BOARD PRESIDENT:** My name is Brigadier General Patrick Mordente. We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad Airfield, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes.

A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board will be kept confidential if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn testimony to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes, I do.

**BOARD PRESIDENT:** I must inform you that this interview is being recorded, and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes, sir, I do.

**BOARD PRESIDENT:** Okay, W17, if you could bring in Captain [redacted] for a second and put him on the phone?

**WITNESS:** Yes, sir, Captain [redacted] is sitting right here. Standby.

**CAPT [redacted]:** Afternoon, sir.

**BOARD PRESIDENT:** Captain [redacted], this is General Mordente. Can you just please confirm for us that Lt Col [redacted] 17 is in fact on the phone, or standing next to you and speaking to us on the phone?

**CAPT [redacted]:** Yes, sir, I've confirmed by his DoD identification card.

**BOARD PRESIDENT:** Okay, thank you very much. If you could put Colonel W17 back on the phone?

**CAPT** : Yes, sir. Thank you, sir. Have a good day.

**BOARD PRESIDENT:** You, too.

**WITNESS:** Sir.

**BOARD PRESIDENT:** I just want to confirm, W17, that Captain departed?

**WITNESS:** Captain has left the room and the door is closed.

**BOARD PRESIDENT:** Your testimony in this investigation will be under oath. At this time, I will administer the oath. Please raise your right hand. Do you solemnly swear or affirm that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth so help you God?

**WITNESS:** I do, sir.

**BOARD PRESIDENT:** All right, you can put your hand down. Today is the 2nd of December 2015, the time now is 1617, by my watch, local time Scott Air Force Base. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are: the witness, Lt Col W17, the legal advisor, Lt Col AIB/LA, the maintenance officer, Lt Col AIB/MX, pilot subject matter expert, Lt Col AIB/PSME, the pilot member, Captain AIB/PM, the loadmaster member, MSgt AIB/LM, and myself, General Mordente, the board president. The witness has been sworn.

**Q1 (BOARD PRESIDENT):** And W17, if you would please state your full name and rank?

**A1 (WITNESS):** Lt Col W17.

**Q2 (BOARD PRESIDENT):** And how long have you been in the military?

**A2 (WITNESS):** Eighteen and a half years, not counting the academy.

**Q3 (BOARD PRESIDENT):** What is your current job title, and if you could also give us your deployed duty location title also?

**A3 (WITNESS):** Okay. Unfortunately, I came home for emergency leave, as you know, sir, however, at the time of the accident, I was the Commander of the 774 Expeditionary Airlift Squadron at Bagram Airfield, Afghanistan. I'm currently the Commander of the 39th Airlift Squadron at Dyess Air Force Base, Texas.

**Q4 (BOARD PRESIDENT):** How long have you been at this unit, with the 39th?

**A4 (WITNESS):** The 39th -- April 6th, I took command, of this year, 2015.

**Q5 (BOARD PRESIDENT):** And you've been with the 314th Airlift Group for how long?

**A5 (WITNESS):** 317th, sir, I got here October of -- in '13.

**Q6 (BOARD PRESIDENT):** Okay. And as you just mentioned, you were recently deployed and you were there at the time of the mishap, correct?

**A6 (WITNESS):** That is correct, sir.

**Q7 (BOARD PRESIDENT):** Okay. We're going to go through some questions here. Can you kind of give us your opinion of ops tempo for the deployed location?

**A7 (WITNESS):** Yes, sir. The ops tempo at the deployed location, I considered it to be moderate to low. It's a very comfortable operational tempo. We've got a good schedule set for folks to get on a body clock, such that they're flying at the same time within plus or minus one or two hours every other day. So we know we've got good rest cycles and all that. It's not just the historical operations tempo that we've seen in C-130 deployed locations. So I feel like the ops tempo was very manageable for both the operations that are deployed, and also the crews.

**Q8 (BOARD PRESIDENT):** Okay. So speaking about the crews and the location, as a squadron commander, how did you prepare your unit, if you can go into kind of the preps that lead up to it, how you determined the crew complement, who flew with who; just kind of in general terms, how did you do it?

**A8 (WITNESS):** Yes, sir. Generally speaking, we used the fairly standard operational risk management model where we paired our more experienced aircraft commanders with our more experienced FPs, you know, kind of starting high to low and then working towards the middle, and then getting in the middle area, you'd have a middle experienced aircraft commander with a middle experienced first pilot. And then you kind of balance the loadmaster crew force in the same way, and pair them with the aircraft commanders. So if I have a lower experienced load team, I'd put them with a more experienced aircraft commander. As far as preparation for Afghanistan, we did as much as we could. We made a couple of Colorado OSTs to get the high PA and a little bit heavier weight, we'd carried some pet rocks up there, which is the roughly 9,000-pound concrete blocks that go into the back of the aircraft in order to get -- to simulate carrying the cargo at the higher altitude and higher PA. We also did quite a few sim profiles allowing people to do penetration descents, which is a little bit newer for us to use the sim more in deployment prep training. So it was helpful.

**Q9 (BOARDPRESIDENT):** Along those lines, as you talk about the crew, Captain MP in particular, was he current and qualified for the mission that he flew?

**A9 (WITNESS):** Yes, sir, he was current and qualified for the mission.

**Q10 (BOARD PRESIDENT):** Okay, and in your estimation as a squadron commander, how would you rank him against his peers?

**A10 (WITNESS):** Captain MP was my number one 2008 Captain. He was one of my execs. Extremely sharp. He would have been submitted for -- we were going to send him to instructor school as soon as we could, and we were going to submit a weapons school package on him to go to the -- probably 16-Bravo or 17-Alpha class. So he was not yet an instructor, but at the top of my aircraft commanders.

**Q11 (BOARD PRESIDENT):** Had you flown with Captain MP in the past?

**A11 (WITNESS):** Yes, sir. I had flown one sortie prior to an observation sortie, but it was some time ago, and I didn't have a lot of recollection of it, and that's the only one.

**Q12 (BOARD PRESIDENT):** When you say an observation, was that at the deployed location, or was that back --

**A12 (WITNESS):** No, sir, local.

**Q13 (BOARD PRESIDENT):** Local, okay.

**A13 (WITNESS):** I had not flown with that crew at the deployed location. I was working my way through the crews and I had not flown with them yet.

**Q14 (BOARD PRESIDENT):** Okay, fair enough. Do you know of any issues associated with Captain MP ?

**A14 (WITNESS):** No, sir.

**Q15 (BOARD PRESIDENT):** Okay, Captain MCP , again, was he current and qualified for the mission to be flown?

**A15 (WITNESS):** He was current and qualified.

**Q16 (BOARD PRESIDENT):** And how would you rank him against his peers?

**A16 (WITNESS):** You know, he was a little bit older, more mature. He wasn't as aggressive, and by that, I mean he was not -- you would have to go seek him out a little bit. He was kind of quiet, but as far as his technical proficiency, his reputation in the squadron was extremely high. And he was a newer exec and I had not worked with him as much, but I knew him fairly well. And then as far as flying is concerned, he had a great reputation.

**Q17 (BOARD PRESIDENT):** Okay, so any known issues?

**A17 (WITNESS):** No none issues, no, sir.

**Q18 (BOARD PRESIDENT):** And projected -- when do you think he would have upgraded to aircraft commander?

**A18 (WITNESS):** .(considering).

**Q19 (BOARD PRESIDENT):** Rough estimate.

**A19 (WITNESS):** Probably summer, but I'd have to really check to see, and we're running just a little bit behind on our aircraft commander upgrades because of some of the -- you know, we keep basically a pipeline going, but I think it would have been in the summer or fall.

**Q20 (BOARD PRESIDENT):** Okay. Another question, engine running off-load procedures at nighttime; is that common in theater now? Is that kind of a common --

**A20 (WITNESS):** Absolutely, sir. Engine running off-load in -- at Jalalabad especially -- almost every time, if not every time. It's the exception not the norm that you would shut down at Jalalabad. Other locations, it just depends on the timeline, and the schedule, and the risk, the threat assessment.

**Q21 (BOARD PRESIDENT):** Okay, and if you can, I'll remind you we're on an unclassified system.

**A21 (WITNESS):** Yes, sir.

**Q22 (BOARD PRESIDENT):** If you can, in your opinion, what drives the ERO at Jalalabad?

**A22 (WITNESS):** Probably, I would say it's a little bit of a risk assessment as far as not wanting to leave the aircraft at that location.

**Q23 (BOARD PRESIDENT):** Got it. Okay, so --

**A23 (WITNESS):** If you have any maintenance issues.

**Q24 (BOARD PRESIDENT):** So if you're a crew flying into Jalalabad, the majority of time you're going to do an ERO, this would be kind of a standard procedure?

**A24 (WITNESS):** It's the exception not the norm. I can't think of a time that I have personally shut down at Jalalabad or know of a crew who has.

**Q25 (BOARD PRESIDENT):** And just to clarify what you just stated, the exception would be to shut down, the norm would be --

**A25 (WITNESS):** That is correct, yes, sir.

**Q26 (BOARD PRESIDENT):** Okay. So along the lines of doing and conducting EROs, are you familiar with any techniques, devices, recommendations, anything like that, to hold the control yolk back in order to raise the elevator as you're trying to off-load or on-load cargo?

**A26 (WITNESS):** I am not. I know that it is a -- it was in the operational guidance, I think, to actually pull the yolk back, you know, in case -- to clear the tail on certain ramps that provide -- all the ramps aren't exactly straight. Theoretically, no cargo should ever hit the elevators, but all the ramps have some slope to them, or some other issues, so sometimes the loadmasters would ask for us to hold the yolk back. I'm not familiar with the techniques that are widely publicized to help hold the yolks back. I've heard, historically, the use of a cargo strap, but that was with the engine shut down. I've never heard it during an engine running situation.

**Q27 (BOARD PRESIDENT):** Okay. Now when you said operational guidance, could you clarify what you mean by operational guidance to raise the elevator?

**A27 (WITNESS):** CENTCOM had -- well, I don't know if it specifically mentioned raising the elevator. I can't remember. But CENTCOM had published some guidance about oversized cargo, and I'm trying to remember if it was a prior squadron read file, if it was in the FCIF that's in the 774, inside the 455th, but there was a lot of discussion about how to handle oversized cargo, and I believe one of the tidbits in that was raising the elevator. And again, my memory on exactly where that's located is unsure, but there was some guidance on oversized cargo.

**BOARD PRESIDENT:** W17, MSgt AIB/LM is our loadmaster team member. He's got a question for you.

**Q28 (LOADMASTER MEMBER):** Yes, sir, Sergeant AIB/LM, how are you doing, sir?

**A28 (WITNESS):** Good, how are you?

**Q29 (LOADMASTER MEMBER):** Good, good. When you say that CENTCOM had some kind of operational guidance, could that maybe have been a read file, or an FCIF, or something along those lines where we can track it down?

**A29 (WITNESS):** Right, that's what I'm trying to remember. I don't exactly remember where it was located, but it very well may have been either in the squadron read files or in the FCIF binder. And I don't -- I'm trying to remember if there was an exact blurb in there about holding it back, but I know it drove some discussion, and had been discussed before.

**Q30 (BOARD PRESIDENT):** And when you mean discussion, discussion as -- could you further clarify what you mean by "it drove discussion?" What did the discussion center on?

**A30 (WITNESS):** Well, one of the things that I concern myself with a lot as a squadron commander is that we focus a lot on pilot training, and almost everything is driven by what the pilot requirements are, and so that tends to leave out loadmasters. In a previous deployment as the DO of the 774, 18 months prior, we had some issues loading larger cargo, but none of it was really associated with the EROs, or necessarily anything associated with elevators, but we had -- as part of our predeployment prep and then also, as a result of that deployment prior, there was a lot of things that were put into those read files, and then other, I think, if I'm not mistaken, I think the 41st had some issues --

**Q31 (BOARD PRESIDENT):** I'm going to ask you a question, and I'll be a little more specific with what I'm driving at. When you say there was discussion, was the discussion focused on the need to raise the elevator at certain locations --

**A31 (WITNESS):** No, sir, I think it was just mentioned as a technique. And like I said, I cannot remember how that -- it's not mandated. I would clearly say that. I think it was just mentioned as a technique, but I can't remember how it's written in those read files.

**Q32 (BOARD PRESIDENT):** Okay, but at no time did anyone talk about how to do it?

**A32 (WITNESS):** No, sir --

**Q33 (BOARD PRESIDENT):** You're just saying that --

**A33 (WITNESS):** -- never, never had it been discussed how to do that.

**Q34 (BOARD PRESIDENT):** Okay, that's what I wanted to make sure. Just give me a second, I'm going to look around the room and see if there's any other questions. Okay, just one quick question. Could you, from a commander's perspective in the deployed location, could you describe your oversight, or your team's oversight of the mission leading up to that night?

**A34 (WITNESS):** As far as like how the mission tasks flow, or what do you mean?

**Q35 (BOARD PRESIDENT):** No, not the tasking, but from your perspective as a commander, how did you maintain oversight of the crew's readiness to fly? I mean, as you go by day-to-day missions, you've got crews out there, you know, sleep/rest cycles, those kind of things, I don't need specifics --

**A35 (WITNESS):** Sure.

**Q36 (BOARD PRESIDENT):** -- but how did you kind of make sure -- how did you test the waters to make sure that the squadron is good to go and your crews are fine?

**A36 (WITNESS):** Yes, sir. Okay, so a couple of things, the Bagram deployed location, I've said it a bunch, it's my favorite one. Partially because of our geographic location, but a lot of it is also, we all live in pretty tight quarters. Almost all of the officers are in one building, the enlisted are in two buildings, but they're not 50 yards apart. We all eat at the same chow hall in the same location. Our operations building is very small and I saw just about every person at least every other day. So you know, I was able to face-to-face see people and I could almost tell, especially in the aftermath of the accident, I could tell who was 100 percent and who wasn't just by looking at their faces.

**Q37 (BOARD PRESIDENT):** Roger.

**A37 (WITNESS):** And so, a lot of it in that location was very easy from a leadership perspective to keep tabs on the crew. Now, functionally, I attempted to fly at a minimum once a week, and I was working my way through the crews. My goal was to fly with all of the crews, to do an observation ride, and then also to maintain my personal proficiency. And so I'd do some of that. Now, we also had the ADOs and the DO also attempted to fly once a week with the same intent, and we kind of had informal discussions about which crews needed assistance, and which crews were performing at a high level, and which ones maybe, hey, we need to bring them in and do a little extra ground training. And I can't remember if anybody had flown with that crew or not. I think they did, but I can't state that for 100 percent certainty.

**Q38 (BOARD PRESIDENT):** Okay. Can you describe like the day of the mission? You know, as missions get fragged to you, or tasked to you as a squadron?

**A38 (WITNESS):** Sure. Yeah, the way the schedule works is, about three days out or two days out, we receive the soft schedule, and our schedule is setup in buckets. So each crew is in a bucket, a time slot. I think that crew was in the fifth bucket, if I'm not mistaken, which would be an early evening, late afternoon type launch. I don't specifically remember which bucket they were in, but I think it was five. But the way it works is, when it comes out, the DO gets that during the day, and he will softly -- we call it the soft -- puts those into those buckets. The next day is that schedule becomes more hard, or goes hard, which is usually at 11 o'clock local Bagram time the day prior. The schedule goes hard, the crews are set, and then we'll either notify the crews or almost always the crews would come into ops the day of, and we would mark them notified. So generally, they get ample notification for their time and what they're flying. So they can do a mission prep if they need to. And then again, same thing, the DO monitors it the whole time. If there's any mission changes throughout the day, they'll make those notes on the board, and then they alert the crew.

**Q39 (BOARD PRESIDENT):** Okay. I've got another question for you. On adjusted max effort takeoffs, as a squadron commander, what's your opinion of aircrew -- J model aircrew and their understanding of when they need to do an AMAX versus when they don't have to? In other words, do you believe aircrew J model, in particular, your squadron, the 39th, as you look at the 39th, do you believe that the aircrew have a good understanding of when an AMAX is required, an adjusted max effort takeoff is required, and when it's not?

**A39 (WITNESS):** Asking some questions after this incident, I would say no,

And that's the best answer I have.

**Q40 (BOARD PRESIDENT):** Okay. No, that's fair. I'm looking around the room, W17, that's why I'm pausing. I know it's awkward on a phone. All right, W17 one more question. Probably a difficult one here. During the course of the cockpit voice recording we hear the aircraft commander, Captain MP, tell -- there's confusion -- the reason I asked the questions about the AMAX is, there's obviously some -- potentially some confusion, or an expectation of a need to do an AMAX based on the weight of the cargo that they're taking. So we hear a discussion going on between the loadmaster and the pilot, aircraft commander, and that discussion, they're kind of back and forth. Looks like it close, and then we believe we understand why the pilot did what he did, but when the co-pilot comes back into the seat, he turns to the pilot and he says, "So are we doing an AMAX takeoff," and the pilot says, "Yeah, we're going to have to do an AMAX takeoff." But then, the thing that is probably the more difficult piece to answer here is, the aircraft commander looks to the co-pilot and says, "You're doing the AMAX takeoff, don't log it because I don't want anybody asking questions." Do you find that disregard for regulatory guidance? Because we know, as an aircraft commander and not an IP, you cannot allow the co-pilot to perform an AMAX takeoff in the right seat.

**A40 (WITNESS):** Correct.

**Q41 (BOARD PRESIDENT):** So do you find that kind of behavior displayed on the cockpit voice recording as -- how would you describe that? You tell me your thoughts on that one.

**A41 (WITNESS):** I think it's unacceptable, to be honest, and it surprises me. I'm not privy to the conversation, so I can't speak to the specifics of their decision, you know, and the exact weights and all that, so I'd have to look at it. But I can't really see a scenario where it would drive it. In any case, I think that shocks me about Captain MP in a way because that's not his general personality. So I'm pretty surprised by that snippet of information.

**Q42 (BOARD PRESIDENT):** Okay, so now that you've said what you've said, I'm going to phrase it, and you can either disagree or agree with what I'm about to ask you. By what I heard you say, you would have found that behavior, based on your knowledge of Captain MP and his performance, to be highly abnormal?

**A42 (WITNESS):** Absolutely.

**Q43 (BOARD PRESIDENT):** Okay, thank you. I appreciate that. Any others as I look around the room? Okay, so I do have a couple of standard concluding questions I'd like to ask you. Do you know of anyone else who might have information that the accident investigation would find helpful in our investigation?

**A43 (WITNESS):** If you haven't talked to Colonel W16 he can maybe give you more specifics on the FCIF and operational guidance because he could actually pull it out and have it in front of him, you know, because I'm not at the location, so I don't have it with me. The binder is classified, but the specifics in the read files are not. So he may be able to provide you some more specifics on what the guidance says.

**Q44 (BOARD PRESIDENT):** Are there any documents, reports, or other evidence we might find helpful in our investigation?

**A44 (WITNESS):** The CENTCOM operational guidance and the read files associated with outsized cargo.

**Q45 (BOARD PRESIDENT):** Okay, thank you. Are there any other matters that we haven't covered that you believe may be important to our investigation?

**A45 (WITNESS):** No, sir.

**PRESIDENT:** Okay, then this last part I need to read to you. You're reminded of the official nature of this interview. You may not discuss your testimony with anyone without my permission at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. And this concludes this interview.

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**V11. VERBATIM TESTIMONY OF MR.**

Witness 11

**VERBATIM TESTIMONY OF**

**MR.** Witness 11

**BOARD PRESIDENT:** My name is Brigadier General Patrick Mordente. We are investigating the C-130J accident that occurred on 2 October 2015, near Jalalabad Airfield, Afghanistan. This investigation, conducted under AFI 51-503, is separate and apart from the safety investigation conducted under AFI 91-204. This accident investigation board is a legal investigation that was convened to inquire into all facts and circumstances surrounding the accident, to prepare a publicly-releasable report, and to obtain and preserve all available evidence for use in litigation, claims, disciplinary actions, adverse administrative actions, and for other purposes. A safety investigation was previously conducted on this accident. Any testimony you gave before the safety investigation board will be kept confidential, if you were so advised, and can be used only for mishap prevention purposes. This board does not have access to any confidential testimony you gave before the safety investigation board. You may not state that you gave any particular information to the safety board under a promise of confidentiality. Your sworn statement to the board may be used for any proper purpose. Additionally, your testimony can be released to the public. Do you understand the difference between your testimony before the safety board and this accident board?

**WITNESS:** Yes, I do.

**BOARD PRESIDENT:** I must inform you that this interview is being recorded and that you may not use your own recording device during this interview. Do you consent to this interview being recorded?

**WITNESS:** Yes, I do.

**BOARD PRESIDENT:** Could you please put your co-worker on the phone, so that we can confirm identity?

**WITNESS:** Yes, one moment.

**BOARD PRESIDENT:** Thank you.

**MR.** Witness 3 : Hi, this is Witness 3 .

**BOARD PRESIDENT:** Thank you , sir. I am sorry, could you state your name one more time?

**MR.** Witness 3 : This is Witness 3 ; my last name is W3 .

**BOARD PRESIDENT:** Thank you, sir. Have you had an opportunity to review Mr. W11 identification card?

**MR.** W3 : Yes.

**BOARD PRESIDENT:** And is he, in fact Mr. W11 ?

**MR.** W3 : That is correct.

**BOARD PRESIDENT:** Thank you. Could you please put Mr. W11 back on the phone, sir?

**MR. W3 :** Roger, stand by.

**WITNESS:** This is W11 .

**BOARD PRESIDENT:** Thank you, sir.

Your testimony in this investigation will be under oath. At this time, I will administer the oath. Please raise your right hand.

Do you solemnly swear that the testimony you are about to give in the matter now under investigation shall be the truth, the whole truth, and nothing but the truth, so help you God?

**WITNESS:** Yes, I do.

**BOARD PRESIDENT:** You previously gave a non-privileged interview to the Safety Investigation board on 7 October 2015. It totals four pages and is included in the safety investigation board report from pages R-3 through R-6. Would you like to adopt this prior statements as part of your testimony today?

**WITNESS:** Yes, that would be fine. [See Tabs R-3 to R-6.]

**BOARD PRESIDENT:** Thank you.

Today is the 3rd of December 2015. The time is now 1412, local, Scott Air Force Base time. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Mr. W11 , the legal advisor, Lieutenant Colonel AIB/LA , the pilot subject matter expert, Lieutenant Colonel AIB/PSME , the pilot member, Captain AIB/PM , loadmaster member, Master Sergeant AIB/LM , and of course me, Brigadier General Patrick Mordente.

The witness has been sworn in at this time.

**Q1 (BOARD PRESIDENT):** Sir, if you could please state your full name?

**A1 (WITNESS):** My name is W11 .

**Q2 (BOARD PRESIDENT):** Thank you. What is your current job title?

**A2 (WITNESS):** Air-traffic control specialist.

**Q3 (BOARD PRESIDENT):** And which company do you work for?

**A3 (WITNESS):** DynCorp International.

**Q4 (BOARD PRESIDENT):** Are you currently located at Jalalabad Airfield, Afghanistan?

**A4 (WITNESS):** Yes, I am.

**Q5 (BOARD PRESIDENT):** How long have you been at Jalalabad?

**A5 (WITNESS):** Since August 2015.

**Q6 (BOARD PRESIDENT):** Have you been an air-traffic controller the entire time you've been there?

**A6 (WITNESS):** Yes, I have.

**Q7 (BOARD PRESIDENT):** And so I know, we have adopted your prior statements, but I just want to get it on the recording. You were there the night of the accident as the air-traffic controller?

**A7 (WITNESS):** Yes, sir. I was on shift that night.

**Q8 (BOARD PRESIDENT):** You were on shift that night and you witnessed the accident then?

**A8 (WITNESS):** Yes, sir.

**BOARD PRESIDENT:** Okay. At this time I want to hand it over to Captain <sup>AIB/PM</sup>, our pilot member. He's got a few questions for you.

**Q9 (PILOT MEMBER):** Mr. W11 this is Captain <sup>AIB/PM</sup>; did you note anything unusual when Torque 62 landed that evening?

**A9 (WITNESS):** No, sir. I don't believe anything unusual happened. When I took shift, the aircraft was already on the ground, on the ramp. I did not witness the actual landing.

**Q10 (PILOT MEMBER):** Okay, thank you.

**A10 (WITNESS):** When I took the position brief, the prior controllers didn't mention anything abnormal.

**Q11 (PILOT MEMBER):** When Torque 62 began their take off, was there any other air-traffic in the tower's airspace?

**A11 (WITNESS):** No, sir. There was no traffic in the airspace at that time.

**Q12 (PILOT MEMBER):** Okay and then can you briefly describe what occurred the morning of 2 October, when Torque 62 was cleared for takeoff?

**A12 (WITNESS):** Yes, sir. He called up ready for departure. I taxied him full-length for his departure. He departed the runway 31, which is a north direction on the airfield. He did his standard departure. He rotated around midfield. His engines sounded good. He looked good. He was airborne. It was nighttime though. Once he got close to the departure end, you lose him visual on that aircraft. And even with the NVGs, night vision goggles, that aircraft normally operates with no lighting, so you can't see them, and that was the last time that I saw the aircraft was near departure end of the runway.

**Q13 (PILOT MEMBER):** Okay and were you on NVGs that evening?

**A13 (WITNESS):** No, sir, not that night.

**PILOT MEMBER:** Okay.

**Q14 (BOARD PRESIDENT):** This is General Mordente, Mr. W11. Just a quick question. I noticed when we looked at some aerial photography, it appears that Runway 31 has an underrun to it. In other words, prior to the start of the runway, a paved section that is usable for taxi and take off only, not for landing. Is that true?

**A14 (WITNESS):** To my knowledge yes, that is true.

**Q15 (BOARD PRESIDENT):** Okay, do you notice whether aircraft utilize that portion for takeoff or do they just normally start at the beginning of the marked runway?

**A15 (WITNESS):** For our point of view in the tower, that's very hard to tell, even if you have binoculars right on the aircraft from their departure position. It's hard to tell precisely where their location is, other than just appearing that they backed taxied the full-length of the runway.

**Q16 (BOARD PRESIDENT):** Roger, but we are correct in recognizing those markings as usable for takeoff?

**A16 (WITNESS):** To my knowledge yes, sir.

**BOARD PRESIDENT:** Okay. I am looking around the room right now. Any other questions?

**Q17 (SME/PILOT):** After you lost sight of the aircraft on departure, did you ever regain sight of it before the impact?

**A17 (WITNESS):** No, sir.

**Questions by the Board President:**

**Q18 (BOARD PRESIDENT):** Did you see, when it impacted, the fireball?

**A18 (WITNESS):** Yes, sir. That could be visually seen easily. It appeared to be just north of the airfield. At the time it was hard to tell whether that was on the FOB or off the air base there.

**BOARD PRESIDENT:** Okay, thank you very much. I am looking around and I don't see any other questions at this time. So are there other matters that we haven't covered that you believe may be important to our investigation?

**WITNESS:** The only thing that I can think of is that we control a lot of C-130s at night, that primarily operate at night here at Jalalabad and his departure seemed very normal. When he does get airborne towards the departure end, not seeing him is very normal, and then they will normally call their five-mile for the frequency change. So once we lost sight of him at the departure end that was very normal and then they would, you know, call again once they were ready for the frequency change. So that is all I have to say.

**BOARD PRESIDENT:** Thank you, sir. I appreciate that. With that, I just want to read this last piece.

### **READOUT**

**(BOARD PRESIDENT):** You are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without my permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Therefore, please inform us if you will no longer be available at this contact number. This concludes this interview.

[The interview concluded.]

**V12. VERBATIM TESTIMONY OF CAPT**

W6

**VERBATIM TESTIMONY OF  
CAPTAIN W6**

**BOARD PRESIDENT:** Good morning. This is Brigadier General Patrick Mordente, the AIB Board President. We are conducting a follow up telephonic interview to the one previously conducted with Captain W6 on 24 November 2015.

**Q1 (BOARD PRESIDENT):** Can you please state your full name and rank?

**A1 (WITNESS):** Captain W6 .

**Q2 (BOARD PRESIDENT):** And are you the same Captain W6 we interviewed on 24 November 2015?

**A2 (WITNESS):** Yes.

**BOARD PRESIDENT:** I'd like to remind you that you are still under oath, and the previous guidance we provided you during the last interview still applies. Do you have any questions about the previous guidance?

**WITNESS:** No.

**BOARD PRESIDENT:** Do you again consent to this interview being recorded?

**WITNESS:** Yes.

**BOARD PRESIDENT:** Today is December 14th, 2015. The time is now 9:57 local. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Captain W6 ; the legal advisor, Lieutenant Colonel AIB/LA the pilot subject matter expert, Lieutenant Colonel AIB/PSME ; the pilot member, Captain AIB/PM ; and me.

**Q3 (BOARD PRESIDENT):** On the night of 1 October 2015, who was present for the intel and tactics briefing?

**A3 (WITNESS):** Just myself and the crew.

**Q4 (BOARD PRESIDENT):** Could you please expand on the crew by position?

**A4 (WITNESS):** Yes, sir. It was the pilot, Capt MP , co-pilot, Capt MCP , and ML2 was the loadmaster and Sergeant... why am I drawing a blank? I'm sorry, sir, who the last loadmaster...

**Q5 (BOARD PRESIDENT):** Staff Sergeant ML1 . Is that correct?

**A5 (WITNESS):** Yes, sir, Staff Sergeant ML1 . We were the only five people in the room.

**Q6 (BOARD PRESIDENT):** Okay, so there were only five people in the room. Were any squadron supervisory personnel present?

**A6 (WITNESS):** No, sir.

**Q7 (BOARD PRESIDENT):** Are any squadron supervisory personnel required to be present?

**A7 (WITNESS):** No, sir.

**Q8 (PILOT MEMBER):** Pilot member, Captain AIB/PM . Just to clarify, before you conducted the tactics briefing there was also an intelligence briefing conducted by one of the Intel personnel?

**A8 (WITNESS):** Yes.

**PILOT MEMBER:** Okay, thank you.

**Q9 (BOARD PRESIDENT):** I do have one more question. Just for clarification. Did you use a standard briefing guide when you conducted your briefing?

**A9 (WITNESS):** No, sir. We have a standard set of slides we go through with them.

**BOARD PRESIDENT:** Okay. So you...

**WITNESS:** Not the actual 3-3 briefing guide.

**Q10 (BOARD PRESIDENT):** But you have a standard set of slides that change over time based on intel, location, and things like that but it's a standard pattern you go through

**A10 (WITNESS):** Yes, we use that.

## **READOUT**

**BOARD PRESIDENT:** That concludes the follow-up interview. As before, you are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without my permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. Thank you.

**V13. VERBATIM TESTIMONY OF SSGT**

Witness 22

**VERBATIM TESTIMONY OF**

**STAFF SERGEANT**

Witness 22

**BOARD PRESIDENT:** Good morning. This is Brigadier General Patrick Mordente, the AIB Board President. We are conducting a follow up telephonic interview to the one previously conducted with Staff Sergeant W22 on 20 November 2015.

**BOARD PRESIDENT:** Can you please state your full name and rank?

**WITNESS:** Staff Sergeant W22 .

**BOARD PRESIDENT:** And are you the same Staff Sergeant W22 we interviewed on 20 November 2015?

**WITNESS:** Correct.

**BOARD PRESIDENT:** I'd like to remind you that you are still under oath, and the previous guidance we provided you during the last interview still applies. Do you have any questions about the previous guidance?

**WITNESS:** No.

**BOARD PRESIDENT:** Do you again consent to this interview being recorded?

**WITNESS:** Yes, I do.

**BOARD PRESIDENT:** Today is December 16th, 2015. The time is now 0853 local. This interview is being conducted telephonically from Scott Air Force Base, Illinois. The persons present are the witness, Staff Sergeant W22 ; the legal advisor, Lieutenant Colonel AIB/LA ; the pilot subject matter expert, Lieutenant Colonel AIB/PSME ; the pilot member, Captain AIB/PM ; the loadmaster member, Master Sergeant AIB/LM , and me.

**Q1 (BOARD PRESIDENT):** You previously gave a non-privileged interview to the Safety Investigation Board on 2 October 2015. Do you remember providing this statement?

**A1 (WITNESS):** Yes.

**Q2 (BOARD PRESIDENT):** And this was a two-page statement?

**A2 (WITNESS):** Yes.

**Q3 (BOARD PRESIDENT):** Would you like to adopt this prior statement as part of your testimony today?

**A3 (WITNESS):** Yes. [See Tab R-18 to R-19.]

**Q4 (BOARD PRESIDENT):** Were the Tri-Cons secured to the pallets and suitable for flight?

**A4 (WITNESS):** Yes, they were.

**Q5 (LOADMASTER MEMBER):** This is Master Sergeant AIB/LM . They were all properly weighed and marked for flight in accordance with applicable regulations, correct?

**A5 (WITNESS):** Yes, sir.

### **READOUT**

**BOARD PRESIDENT:** That concludes the follow-up interview. As before, you are reminded of the official nature of this interview. You may not discuss your testimony with anyone, without my permission, at any time before the report of this investigation is officially released to the public. Additionally, you may be recalled to provide additional testimony if needed. This concludes the interview.

**TAB W**

**WEATHER AND ENVIRONMENTAL RECORDS AND DATA (Not Included in  
Tab F)**

W1. MOON ILLUMINATION DURING MISHAP SORTIE..... W-3

**INTENTIONALLY**

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# W1. MOON ILLUMINATION DURING MISHAP SORTIE

## Alt/Az Table

Astronomical Applications Dept.  
U.S. Naval Observatory  
Washington, DC 20392-5420

OAJL

E 70° 29', N 34° 24'

Altitude and Azimuth of the Moon  
Oct 1, 2015

Universal Time

	Altitude	Azimuth	Fraction
		(E of N)	Illuminated
h m	o	o	
00:00	52.7	243.4	0.88
00:20	49.1	248.2	0.88
00:40	45.3	252.5	0.88
01:00	41.5	256.3	0.88
01:20	37.6	259.7	0.88
01:40	33.7	262.9	0.87
02:00	29.7	266.0	0.87
02:20	25.7	268.8	0.87
02:40	21.8	271.6	0.87
03:00	17.8	274.2	0.87
03:20	13.9	276.9	0.87
03:40	10.0	279.5	0.87
04:00	6.1	282.1	0.87
04:20	2.4	284.8	0.87
04:40	-1.6	287.5	0.86
05:00	-5.3	290.3	0.86
05:20	-9.0	293.3	0.86
14:40	-11.9	62.9	0.83
15:00	-8.3	65.9	0.83
15:20	-4.6	68.7	0.83
15:40	-0.9	71.5	0.83
16:00	3.2	74.1	0.82
16:20	6.9	76.7	0.82
16:40	10.8	79.3	0.82
17:00	14.7	81.8	0.82
17:20	18.7	84.3	0.82
17:40	22.7	86.9	0.82
18:00	26.7	89.5	0.82
18:20	30.7	92.2	0.82
18:40	34.7	95.1	0.82
19:00	38.7	98.1	0.81
19:20	42.7	101.4	0.81
19:40	46.6	105.0	0.81
20:00	50.5	109.0	0.81
20:20	54.2	113.6	0.81
20:40	57.9	119.0	0.81
21:00	61.3	125.3	0.81
21:20	64.5	133.0	0.80
21:40	67.2	142.3	0.80

22:00	69.4	153.6	0.80
22:20	70.8	166.9	0.80
22:40	71.2	181.3	0.80
23:00	70.7	195.6	0.80
23:20	69.2	208.6	0.80
23:40	66.9	219.7	0.80

[Back to form](#)

12/4/2015

## TAB X

### STATEMENTS OF INJURY OR DEATH

X1.	CERTIFICATE OF DEATH, CAPT	MP	.....	X-3
X2.	CERTIFICATE OF DEATH, CAPT	MCP	.....	X-5
X3.	CERTIFICATE OF DEATH, SSGT	ML1	.....	X-7
X4.	CERTIFICATE OF DEATH, SRA	ML2	.....	X-9
X5.	CERTIFICATE OF DEATH, SRA	MFAST1	.....	X-11
X6.	CERTIFICATE OF DEATH, A1C	MFAST2	.....	X-13
X7.	CERTIFICATE OF DEATH, MR.	MK1	.....	X-15
X8.	CERTIFICATE OF DEATH, MR.	MK2	.....	X-17
X9.	CERTIFICATE OF DEATH, MR.	MK3	.....	X-19
X10.	CERTIFICATE OF DEATH, MR.	MK4	.....	X-21
X11.	CERTIFICATE OF DEATH, MR.	MK5	.....	X-23

**INTENTIONALLY**

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# X1. CERTIFICATE OF DEATH, CAPT

MP

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) MP		GRADE Grade O-3	BRANCH OF SERVICE Arme Air Force
ORGANIZATION Organisation 39th Airlift Squadron, Dyess AFB, TX (AMC)		NATION (e.g. United States) Pays United States	DATE OF BIRTH Date de naissance
RACE Race CAUCASOID Caucasique		MARITAL STATUS État Civil SINGLE Célibataire	RELIGION Culte PROTESTANT Protestant
NEGROID Négre		MARRIED Marié	CATHOLIC Catholique
OTHER (Specify) Autre (Spécifier)		WIDOWED Veuf	JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort <sup>1</sup>		Multiple injuries due to aircraft mishap	
ANTECEDENT CAUSES Symptômes précurseurs de la mort	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie	DATE Date 6 October 2015	
<input type="checkbox"/> NATURAL Mort naturelle	NAME OF PATHOLOGIST Nom du pathologiste COL, USA, MC		
<input type="checkbox"/> SUICIDE Suicide		AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	
<input type="checkbox"/> HOMICIDE Homicide			
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) 2 October 2015 0000	PLACE OF DEATH Lieu de décès Jalalabad Afghanistan		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE J'ai examiné les restes mortels du défunt et je conclus que le décès est survenu à l'heure indiquée et à, la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme Armed Forces Medical Examiner	
GRADE Grade COL	INSTALLATION OR ADDRESS Installation ou adresse Dover AFB, Dover DE		
DATE Date 10/27/2015	SIGNATURE Signature		
<sup>1</sup> State disease, injury or complication which caused death, but not mode of dying such as heart failure, etc. <sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death. 1 Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du coeur, etc. 2 Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.			

DD FORM 1 APR 77 2064

REPLACES DA FORM 3685, 1 JAN 72 AND DA FORM 3688-R(PAS), 29 SEP 76, WHICH ARE OBSOLETE.

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE GS-12	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS AFMAO/PMD, 116 Purple Heart Drive, Dover AFB DE 19902	DATE 10/27/2015	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X2. CERTIFICATE OF DEATH, CAPT

MCP

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>MCP</b>		GRADE Grade <b>O-3</b>	BRANCH OF SERVICE Arme <b>Air Force</b>
ORGANIZATION Organisation <b>39th Airlift Squadron, Dyess AFB, TX (AMC)</b>		NATION (e.g. United States) Pays <b>United States</b>	DATE OF BIRTH Date de naissance
RACE Race		MARITAL STATUS État Civil	RELIGION Culte
<input type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant
<input type="checkbox"/> NEGROID Négre	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input type="checkbox"/> CATHOLIC Catholique
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> WIDOWED Veuf		<input type="checkbox"/> JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort. <sup>1</sup>			<b>Multiple Injuries due to aircraft mishap</b>
ANTECEDENT CAUSES Symptômes précurseurs de la mort.	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide			
<input type="checkbox"/> HOMICIDE Homicide	NAME OF PATHOLOGIST Nom du pathologiste <b>MAJ MD</b>	DATE Date <b>6 October 2015</b>	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES OUI <input type="checkbox"/> NO NON
SIGNATURE Signature			
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) <b>2 October 2015 0000</b>	PLACE OF DEATH Lieu de décès <b>Jalalabad Afghanistan</b>		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du défunt et je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme <b>Deputy Medical Examiner</b>	
GRADE Grade <b>MAJ</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>Dover AFB, Dover DE</b>		
DATE Date <b>10/19/2015</b>	SIGNATURE Signature		

**DD FORM 2064** 1 APR 77 REPLACES DA FORM 3565, 1 JAN 72 AND DA FORM 3565-R(PAS), 28 SEP 76, WHICH ARE OBSOLETE.

C-130J, T/N 08-3174, 2 October 2015

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE GS-12	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS AFMAO/PMD, 116 Purple Heart Drive, Dover AFB DE 19902	DATE 10/19/2015	SIGN [Signature]	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY [Signature]		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X3. CERTIFICATE OF DEATH, SSGT

ML1

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) ML1		GRADE Grade E-5	BRANCH OF SERVICE Arme Air Force
ORGANIZATION Organisation 39th Airlift Squadron, Dyess AFB, TX (AMC)		NATION (e.g. United States) Pays United States	DATE OF BIRTH Date de naissance
		SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE	
RACE Race		MARITAL STATUS État Civil	
CAUCASOID Caucasique		SINGLE Célibataire	
NEGROID Néгриode		MARRIED Marié	
OTHER (Specify) Autre (Spécifier)		WIDOWED Veuf	
RELIGION Culte		PROTESTANT Protestant	
		CATHOLIC Catholique	
		JEWISH Juif	
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort. <sup>1</sup>			Multiple Injuries
ANTECEDENT CAUSES Symptômes précurseurs de la mort	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non		CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures
<input type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle	NAME OF PATHOLOGIST Nom du pathologiste CDR, MC, USN		
<input type="checkbox"/> SUICIDE Suicide	SIGNATURE Signature	DATE Date 6 October 2015	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
<input type="checkbox"/> HOMICIDE Homicide			
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) 2 October 2015 0430	PLACE OF DEATH Lieu de décès Jalalabad Afghanistan		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE J'ai examiné les restes mortels du dé funtel je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme Deputy Medical Examiner	
GRADE Grade CDR	INSTALLATION OR ADDRESS Installation ou adresse Dover AFB, Dover DE		
DATE Date 10/26/2015	SIGNATURE Signature		
<sup>1</sup> State disease, injury or complication which caused death, but not mode of dying such as heart failure, ect. <sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death. <sup>1</sup> Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du coeur, etc. <sup>2</sup> Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.			

DD FORM 1 APR 77 2064

REPLACES DA FORM 3665, 1 JAN 72 AND DA FORM 3665-R(PAS), 26 SEP 76, WHICH ARE OBSOLETE.

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE GS-12	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS AFMAO/PMD, 116 Purple Heart Drive, Dover AFB DE 19902	DATE 10/26/2015	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X4. CERTIFICATE OF DEATH, SRA

ML2

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>ML2</b>		GRADE Grade <b>E-4</b>	BRANCH OF SERVICE Arme <b>Air Force</b>
ORGANIZATION Organisation <b>39th Airlift Squadron, Dyess AFB, TX (AMC)</b>		NATION (e.g. United States) Pays <b>United States</b>	DATE OF BIRTH Date de naissance
			SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
RACE Race	MARITAL STATUS État Civil		RELIGION Culte
<input type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant
<input type="checkbox"/> NEGROID Négride	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input type="checkbox"/> CATHOLIC Catholique
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> WIDOWED Veuf		<input type="checkbox"/> JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicilié à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort.			<b>Multiple Injuries</b>
ANTECEDENT CAUSES Symptômes précurseurs de la mort.	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide			
<input type="checkbox"/> HOMICIDE Homicide	NAME OF PATHOLOGIST Nom du pathologiste <b>LTCOL, USAF, MC</b>	DATE Date <b>6 October 2015</b>	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) <b>2 October 2015 0000</b>	PLACE OF DEATH Lieu de décès <b>Jalalabad Afghanistan</b>		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du défunt et conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme <b>Chief Deputy Medical Examiner</b>	
GRADE Grade <b>LTCOL</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>Dover AFB, Dover DE</b>		
DATE Date <b>10/21/2015</b>	SIGNATURE Signature		
<sup>1</sup> State disease, injury or complication which caused death, but not mode or dying such as organ failure, etc. <sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death. <sup>3</sup> Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du cœur, etc. <sup>4</sup> Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.			

DD FORM 1 APR 77 **2064**

REPLACES DA FORM 3585, 1 JAN 72 AND DA FORM 3565-R(PAS), 26 SEP 76, WHICH ARE OBSOLETE.

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE GS-11	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS AFMAO/PMD, 116 Purple Heart Drive, Dover AFB DE 19902	DATE 10/21/2015	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X5. CERTIFICATE OF DEATH, SRA

MFAST1

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) MFAST1		GRADE Grade E-4	BRANCH OF SERVICE Arme Air Force
ORGANIZATION Organisation 68th Security Forces Squadron, Hanscom AFB, MA (AFMC)		NATION (e.g. United States) Pays United States	DATE OF BIRTH Date de naissance
RACE Race		MARITAL STATUS État Civil	RELIGION Culte
CAUCASOID Caucasique	SINGLE Célibataire	DIVORCED Divorcé	PROTESTANT Protestant
NEGROID Négre	MARRIED Marié	SEPARATED Séparé	CATHOLIC Catholique
OTHER (Specify) Autre (Spécifier)	WIDOWED Veuf		JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort <sup>1</sup>		Multiple Injuries	
ANTECEDENT CAUSES Symptômes précurseurs de la mort	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
X ACCIDENT Mort accidentelle			
SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste MC, USA		
HOMICIDE Homicide	SIGNATURE Signature	DATE Date 6 October 2015	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
DATE OF DEATH (day, month/year) Date de décès (le jour, le mois, l'année) 2 October 2015 0025	PLACE OF DEATH Lieu de décès Jalalabad Afghanistan		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE J'ai examiné les restes mortels du dé funt et je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme Deputy Medical Examiner	
GRADE Grade MAJ	INSTALLATION OR ADDRESS Installation ou adresse Dover AFB, Dover DE		
DATE Date 10/27/2015	SIGNATURE Signature		

DD FORM 1 APR 77 2064

REPLACES DA FORM 3665, 1 JAN 72 AND DA FORM 3665-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.

C-130J, T/N 08-3174, 2 October 2015

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE GS-12	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS AFMAO/PMD, 116 Purple Heart Drive, Dover AFB DE 19902	DATE 10/27/2015	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X6. CERTIFICATE OF DEATH, A1C

MFAST2

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>MFAST2</b>		GRADE Grade <b>E-3</b>	BRANCH OF SERVICE Arme <b>Air Force</b>
ORGANIZATION Organisation <b>66th Security Forces Squadron, Hanscom AFB, MA (AFMC)</b>		NATION (e.g. United States) Pays <b>United States</b>	DATE OF BIRTH Date de naissance
RACE Race		MARITAL STATUS État Civil	RELIGION Culte
<input type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant
<input type="checkbox"/> NEGROID Negroïde	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input type="checkbox"/> CATHOLIC Catholique
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> WIDOWED Veuf		<input type="checkbox"/> JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort. <sup>1</sup>			<b>Multiple Injuries</b>
ANTECEDENT CAUSES Symptômes précurseurs de la mort.	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste <b>LTCOL, USAF, MC</b>	AVIATION ACCIDENT Accident à Avion	
<input type="checkbox"/> HOMICIDE Homicide	SIGNATURE Signature	DATE Date <b>6 October 2015</b>	<input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) <b>2 October 2015 0000</b>	PLACE OF DEATH Lieu de décès <b>Jalalabad Afghanistan</b>		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du défunt je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme <b>Chief Deputy Medical Examiner</b>	
GRADE Grade <b>LTCOL</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>Dover AFB, Dover DE</b>		
DATE Date <b>10/21/2015</b>	SIGNATURE Signature		
<sup>1</sup> State disease, injury or complication which caused death, but not mode of dying such as heart failure, ect. <sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death. <sup>3</sup> Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du cœur, etc. <sup>4</sup> Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.			

DD FORM 1 APR 77 **2064**

REPLACES DA FORM 3885, 1 JAN 72 AND DA FORM 3885-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.

C-130J, T/N 08-3174, 2 October 2015

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE GS-11	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS AFMAO/PMD, 116 Purple Heart Drive, Dover AFB DE 19902	DATE 10/21/2015	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY (Town and Country)	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X7. CERTIFICATE OF DEATH, MR.

MK1

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>MK1</b>		GRADE Grade	BRANCH OF SERVICE Arme <b>Civilian</b>
ORGANIZATION Organisation <b>Asia Logistics General Trading Company</b>		NATION (e.g. United States) Pays <b>Kyrgyzstan</b>	DATE OF BIRTH Date de naissance
		SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE	
RACE Race		MARITAL STATUS État Civil	
CAUCASOID Caucasique		SINGLE Célibataire	
NEGROID Négre		MARRIED Marié	
OTHER (Specify) Autre (Spécifier)		WIDOWED Veuf	
		DIVORCED Divorcé	
		SEPARATED Séparé	
		RELIGION Culte PROTESTANT Protestant CATHOLIC Catholique JEWISH Juif	
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort <sup>1</sup> <b>Multiple Injuries</b>			
ANTECEDENT CAUSES Symptômes précurseurs de la mort.	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide			
<input type="checkbox"/> HOMICIDE Homicide	NAME OF PATHOLOGIST Nom du pathologiste <b>LTCOL, USAF, MC</b>	DATE Date <b>6 October 2015</b>	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) <b>2 October 2015</b>	PLACE OF DEATH Lieu de décès <b>Afghanistan</b>		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du défunt et je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme <b>Chief Deputy Medical Examiner</b>	
GRADE Grade <b>LTCOL</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>Dover AFB, Dover DE</b>		
DATE Date <b>10/27/2015</b>			
<sup>1</sup> State disease, injury or complication which caused death, but not mode of dying such as heart failure, ect. <sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death. <sup>3</sup> Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du coeur, etc. <sup>4</sup> Préciser la condition qui a contribué à la mort, mais n'établir aucun rapport avec la maladie ou à la condition qui a provoqué la mort.			

DD FORM 1 APR 77 **2064**

REPLACES DA FORM 3665, 1 JAN 72 AND DA FORM 3665-R(PAS), 28 SEP 75, WHICH ARE OBSOLETE.

C-130J, T/N 08-3174, 2 October 2015

X-15

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY <i>(Town and Country)</i>	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

**X8. CERTIFICATE OF DEATH, MR.**

MK2

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) MK2		GRADE Grade	BRANCH OF SERVICE Arme Civilian
ORGANIZATION Organisation Northrop Grumman		NATION (e.g. United States) Pays United States	SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
RACE Race	MARITAL STATUS État Civil		RELIGION Culte
<input type="checkbox"/> CAUCASOID Caucasique	<input checked="" type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant
<input type="checkbox"/> NEGROID Néгриоде	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input type="checkbox"/> CATHOLIC Catholique
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> WIDOWED Veuf		<input type="checkbox"/> JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort. <sup>1</sup>		Multiple Injuries due to aircraft mishap	
ANTECEDENT CAUSES Symptômes précurseurs de la mort	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie.		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste COL, USA, MC		
<input type="checkbox"/> HOMICIDE Homicide	SIGNATURE Signature	DATE Date 6 October 2015	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) 2 October 2015 0000	PLACE OF DEATH Lieu de décès Jalalabad Afghanistan		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du dé funtel je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme Armed Forces Medical Examiner	
GRADE Grade COL	INSTALLATION OR ADDRESS Installation ou adresse Dover AFB, Dover DE		
DATE Date 10/27/2015	SIGNATURE Signature		

DD FORM 1 APR 77 2064

REPLACES DA FORM 3665, 1 JAN 72 AND DA FORM 3665-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

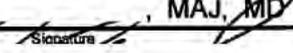
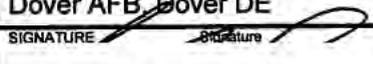
DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION	DATE OF DISPOSITION		
REGISTRATION OF VITAL STATISTICS			
REGISTRY <i>(Town and Country)</i>	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X9. CERTIFICATE OF DEATH, MR.

MK3

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>MK3</b>		GRADE Grade	BRANCH OF SERVICE Arme <b>Civilian</b>
ORGANIZATION Organisation <b>Battlespace Flight Services</b>		NATION (e.g. United States) Pays <b>United States</b>	DATE OF BIRTH Date de naissance
			SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
RACE Race		MARITAL STATUS État Civil	
CAUCASOID Caucasique		SINGLE Célibataire	
NEGROID Nègre		MARRIED Marié	
OTHER (Specify) Autre (Spécifier)		WIDOWED Veuf	
		DIVORCED Divorcé	
		SEPARATED Séparé	
		PROTESTANT Protestant	
		CATHOLIC Catholique	
		JEWISH Juif	
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicilié à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort. <sup>1</sup>			<b>Multiple injuries due to an aircraft mishap</b>
ANTECEDENT CAUSES Symptômes précurseurs de la mort.	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input checked="" type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste <b>MAJ, MD</b>	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	
<input type="checkbox"/> HOMICIDE Homicide	SIGNATURE Signature 		
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) <b>2 October 2015 0025</b>	PLACE OF DEATH Lieu de décès <b>Jalalabad Afghanistan</b>		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du dé funt et je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme <b>Deputy Medical Examiner</b>	
GRADE Grade <b>MAJ</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>Dover AFB, Dover DE</b>		
DATE Date <b>10/19/2015</b>	SIGNATURE Signature 		
<small> <sup>1</sup> State disease, injury or complication which caused death, but not mode of dying such as heart failure, ect.  <sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death.  <sup>3</sup> Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du coeur, etc.  <sup>4</sup> Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.                 </small>			

DD FORM 1 APR 77 **2064**

REPLACES DA FORM 3565, 1 JAN 72 AND DA FORM 3565-R(PAS), 28 SEP 76, WHICH ARE OBSOLETE.

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION	DATE OF DISPOSITION		
REGISTRATION OF VITAL STATISTICS			
REGISTRY <i>(Town and Country)</i>	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

**X10. CERTIFICATE OF DEATH, MR.**

MK4

<b>CERTIFICATE OF DEATH (OVERSEAS)</b> <b>Acte de décès (D'Outre-Mer)</b>				
<b>NAME OF DECEASED</b> (Last, First, Middle) Nom du décédé (Nom et prénoms) MK4		<b>GRADE</b> Grade MK4	<b>BRANCH OF SERVICE</b> Arme Civilian	<b>SOCIAL SECURITY NUMBER</b> Numéro de l'Assurance Sociale
<b>ORGANIZATION</b> Organisation Battlespace Flight Services		<b>NATION</b> (e.g. United States) Pays United States	<b>DATE OF BIRTH</b> Date de naissance	<b>SEX</b> Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
<b>RACE</b> Race CAUCASOID Caucasique NEGROID Negride OTHER (Specify) Autre (Spécifier)		<b>MARITAL STATUS</b> État Civil SINGLE Célibataire MARRIED Marié WIDOWED Veuf DIVORCED Divorcé SEPARATED Séparé		<b>RELIGION</b> Culte PROTESTANT Protestant CATHOLIC Catholique JEWISH Juif OTHER (Specify)
<b>NAME OF NEXT OF KIN</b> Nom du plus proche parent		<b>RELATIONSHIP TO DECEASED</b> Parenté du décédé avec le susdit		
<b>STREET ADDRESS</b> Domicile à (Rue)		<b>CITY OR TOWN OR STATE</b> (Include ZIP Code) Ville (Code postal compris)		
<b>MEDICAL STATEMENT</b> Déclaration médicale				
<b>CAUSE OF DEATH</b> (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)				<b>INTERVAL BETWEEN ONSET AND DEATH</b> Intervalle entre l'attaque et le décès
<b>DISEASE OR CONDITION DIRECTLY LEADING TO DEATH</b> <sup>1</sup> Maladie ou condition directement responsable de la mort. <sup>1</sup>		Multiple Injuries		
<b>ANTECEDENT CAUSES</b> Symptômes précurseurs de la mort.	<b>MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE</b> Condition morbide, s'il y a lieu, menant à la cause primaire			
	<b>UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE</b> Condition morbide, s'il y a lieu, menant à la cause primaire			
<b>OTHER SIGNIFICANT CONDITIONS</b> <sup>2</sup> Autres conditions significatives <sup>2</sup>				
<b>MODE OF DEATH</b> Condition de décès	<b>AUTOPSY PERFORMED</b> Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non		<b>CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES</b> Circonstances de la mort suscitées par des causes extérieures	
<input type="checkbox"/> NATURAL Mort naturelle <input checked="" type="checkbox"/> ACCIDENT Mort accidentelle <input type="checkbox"/> SUICIDE Suicide <input type="checkbox"/> HOMICIDE Homicide	<b>MAJOR FINDINGS OF AUTOPSY</b> Conclusions principales de l'autopsie			
	<b>NAME OF PATHOLOGIST</b> Nom du pathologiste CDR, MC, USN			
	<b>SIGNATURE</b> Signature	<b>DATE</b> Date 6 October 2015	<b>AVIATION ACCIDENT</b> Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	
<b>DATE OF DEATH</b> (day, month, year) Date de décès (le jour, le mois, l'année) 2 October 2015 0025		<b>PLACE OF DEATH</b> Lieu de décès Jalalabad Afghanistan		
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du défunt je conclus que le décès est survenu à l'heure indiquée et à, la suite des causes énumérées ci-dessus.				
<b>NAME OF MEDICAL OFFICER</b> Nom du médecin militaire ou du médecin sanitaire		<b>TITLE OR DEGREE</b> Titre ou diplôme Deputy Medical Examiner		
<b>GRADE</b> Grade CDR	<b>INSTALLATION OR ADDRESS</b> Installation ou adresse Dover AFB, Dover DE			
<b>DATE</b> Date 10/26/2015	<b>SIGNATURE</b> Signature			

**DD FORM 1 APR 77 2064**

REPLACES DA FORM 3585, 1 JAN 72 AND DA FORM 3585-R(PAS), 26 SEP 76, WHICH ARE OBSOLETE.

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY <i>(Town and Country)</i>	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

USAPA V1.00

# X11. CERTIFICATE OF DEATH, MR.

MK5

CERTIFICATE OF DEATH (OVERSEAS) Acte de décès (D'Outre-Mer)			
NAME OF DECEASED (Last, First, Middle) Nom du décédé (Nom et prénoms) <b>MK5</b>		GRADE Grade	BRANCH OF SERVICE Arme <b>Civilian</b>
ORGANIZATION Organisation <b>AC FIRST</b>		NATION (e.g. United States) Pays <b>United States</b>	DATE OF BIRTH Date de naissance
RACE Race		MARITAL STATUS État Civil	SEX Sexe <input checked="" type="checkbox"/> MALE <input type="checkbox"/> FEMALE
<input type="checkbox"/> CAUCASOID Caucasique	<input type="checkbox"/> SINGLE Célibataire	<input type="checkbox"/> DIVORCED Divorcé	<input type="checkbox"/> PROTESTANT Protestant
<input type="checkbox"/> NEGROID Négride	<input type="checkbox"/> MARRIED Marié	<input type="checkbox"/> SEPARATED Séparé	<input type="checkbox"/> CATHOLIC Catholique
<input type="checkbox"/> OTHER (Specify) Autre (Spécifier)	<input type="checkbox"/> WIDOWED Veuf		<input type="checkbox"/> JEWISH Juif
NAME OF NEXT OF KIN Nom du plus proche parent		RELATIONSHIP TO DECEASED Parenté du décédé avec le susdit	
STREET ADDRESS Domicile à (Rue)		CITY OR TOWN OR STATE (Include ZIP Code) Ville (Code postal compris)	
MEDICAL STATEMENT Déclaration médicale			
CAUSE OF DEATH (Enter only one cause per line) Cause du décès (N'indiquer qu'une cause par ligne)			INTERVAL BETWEEN ONSET AND DEATH Intervalle entre l'attaque et le décès
DISEASE OR CONDITION DIRECTLY LEADING TO DEATH <sup>1</sup> Maladie ou condition directement responsable de la mort <sup>1</sup>		<b>Multiple Injuries</b>	
ANTECEDENT CAUSES Symptômes précurseurs de la mort	MORBID CONDITION, IF ANY, LEADING TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
	UNDERLYING CAUSE, IF ANY, GIVING RISE TO PRIMARY CAUSE Condition morbide, s'il y a lieu, menant à la cause primaire		
OTHER SIGNIFICANT CONDITIONS <sup>2</sup> Autres conditions significatives <sup>2</sup>			
MODE OF DEATH Condition de décès	AUTOPSY PERFORMED Autopsie effectuée <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non	CIRCUMSTANCES SURROUNDING DEATH DUE TO EXTERNAL CAUSES Circonstances de la mort suscitées par des causes extérieures	
<input type="checkbox"/> NATURAL Mort naturelle	MAJOR FINDINGS OF AUTOPSY Conclusions principales de l'autopsie		
<input checked="" type="checkbox"/> ACCIDENT Mort accidentelle			
<input type="checkbox"/> SUICIDE Suicide	NAME OF PATHOLOGIST Nom du pathologiste <b>MC, USA</b>		
<input type="checkbox"/> HOMICIDE Homicide	SIGNATURE Signature	DATE Date <b>6 October 2015</b>	AVIATION ACCIDENT Accident à Avion <input checked="" type="checkbox"/> YES Oui <input type="checkbox"/> NO Non
DATE OF DEATH (day, month, year) Date de décès (le jour, le mois, l'année) <b>2 October 2015 0045</b>		PLACE OF DEATH Lieu de décès <b>Jalalabad Afghanistan</b>	
I HAVE VIEWED THE REMAINS OF THE DECEASED AND DEATH OCCURRED AT THE TIME INDICATED AND FROM THE CAUSES AS STATED ABOVE. J'ai examiné les restes mortels du défunt et je conclus que le décès est survenu à l'heure indiquée et à la suite des causes énumérées ci-dessus.			
NAME OF MEDICAL OFFICER Nom du médecin militaire ou du médecin sanitaire		TITLE OR DEGREE Titre ou diplôme <b>Deputy Medical Examiner</b>	
GRADE Grade <b>MAJ</b>	INSTALLATION OR ADDRESS Installation ou adresse <b>Dover AFB, Dover DE</b>		
DATE Date <b>10/28/2015</b>	SIGNATURE Signature		

<sup>1</sup> State disease, injury or complication which caused death, but not mode of dying such as heart failure, etc.  
<sup>2</sup> State conditions contributing to the death, but not related to the disease or condition causing death.  
<sup>1</sup> Préciser la nature de la maladie, de la blessure ou de la complication qui a contribué à la mort, mais non la manière de mourir, telle qu'un arrêt du coeur, etc.  
<sup>2</sup> Préciser la condition qui a contribué à la mort, mais n'ayant aucun rapport avec la maladie ou à la condition qui a provoqué la mort.

DD FORM 1 APR 77 **2064**

REPLACES DA FORM 3685, 1 JAN 72 AND DA FORM 3685-R(PAS), 26 SEP 75, WHICH ARE OBSOLETE.

C-130J, T/N 08-3174, 2 October 2015

X-23

(REMOVE, REVERSE AND RE-INSERT CARBONS BEFORE COMPLETING THIS SIDE)

DISPOSITION OF REMAINS			
NAME OF MORTICIAN PREPARING REMAINS	GRADE	LICENSE NUMBER AND STATE	OTHER
INSTALLATION OR ADDRESS	DATE	SIGNATURE	
NAME OF CEMETERY OR CREMATORY	LOCATION OF CEMETERY OR CREMATORY		
TYPE OF DISPOSITION		DATE OF DISPOSITION	
REGISTRATION OF VITAL STATISTICS			
REGISTRY <i>(Town and Country)</i>	DATE REGISTERED	FILE NUMBER	
		STATE	OTHER
NAME OF FUNERAL DIRECTOR	ADDRESS		
SIGNATURE OF AUTHORIZED INDIVIDUAL			

DD FORM 2064, APR 1977 (BACK)

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## **TAB Y**

### **LEGAL BOARD APPOINTMENT DOCUMENTS**

Y1. INITIAL CONVENING ORDER, 2 OCTOBER 2015 .....	Y-3
Y2. APPOINTMENT OF ADDITIONAL MEMBERS, 19 OCTOBER 2015 .....	Y-5
Y3. SUBJECT MATTER EXPERT APPOINTMENT, 19 OCTOBER 2015 .....	Y-6
Y4. SUBSTITUTE ADDITIONAL MEMBER APPOINTMENT, 22 OCTOBER 2015 .....	Y-7
Y5. SUBJECT MATTER EXPERT APPOINTMENT, 28 OCTOBER 2015 .....	Y-8
Y6. SUBJECT MATTER EXPERT APPOINTMENT, 19 NOVEMBER 2015.....	Y-9

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# Y1. INITIAL CONVENING ORDER, 2 OCTOBER 2015



## DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND

2 October 2015

MEMORANDUM FOR BRIGADIER GENERAL PATRICK X. MORDENTE, 18AF/CV

FROM: AMC/CV

SUBJECT: Convening of AFI 51-503 Accident Investigation Board, Class A,  
C-130J Mishap, 1 October 2015, Jalalabad, Afghanistan

1. An Accident Investigation Board (AIB) is hereby convened under the provisions of AFI 51-503 to investigate the subject mishap. You must avoid accessing any privileged safety information regarding this mishap until approval of the report. This appointment letter is your authority to interview witnesses, take sworn testimony, and review all documents, files, and wreckage relevant to your investigation. Upon receipt of a complete Part I of the Safety Investigation Board (SIB) Report, you and other detailed members are relieved of all other duties until the AIB Report is submitted for approval. You may consider releasing any member when his/her AIB responsibilities are complete. The following personnel are detailed to serve on the AIB:

Brigadier General Patrick X. Mordente, 18AF/CV	President
Lieutenant Colonel AIB/LA 18AF/JA	Legal Advisor

2. Your investigation will follow the guidelines and procedures in AFI 51-503. HQ AMC/JA will advise you on preliminary administrative matters, as required. Your legal advisor is required to be present during all witness interviews, and must review all evidence, documents, transcripts, and statements prior to inclusion in your report. Your report will include an Executive Summary, Summary of Facts, and Statement of Opinion as required by AFI 51-503. All witnesses, documents, records, and other evidence within the control of the Air Force will be made available to you, other than privileged safety information. All witnesses who testify must do so under oath or affirmation. Your report shall be released to the public and shall not contain any privileged safety or Privacy Act-protected information.

3. Your Statement of Opinion must be supported by a preponderance of the evidence contained in your report. Your legal advisor will assist you in evaluating evidence. Do not include recommendations for corrective or disciplinary action in your report. You and the other AIB members are not authorized to disclose board findings or opinions, except to members of my staff, prior to my approval of the AIB report.

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4. Travel and billeting will be funded by Air Mobility Command. You will be provided a cross organizational funding authorization for your travel by HQ AMC/JA. Travel orders should be issued locally and authorize variations in travel for all board members. All travel costs for witness interviews outside the host installation area should be coordinated with HQ AMC/JA in advance.

5. In accordance with AFI 51-503, the host installation will assist you with logistical and administrative support. A host installation liaison officer will be appointed to assist with arranging billeting, vehicles (if available), facilities, administrative support, and reproduction services. Make contact with the host installation liaison officer through the wing commander's office. Additionally, the mishap squadron shall appoint a point of contact to assist the AIB with access to witnesses and evidence secured by the unit.

6. Your investigation should be completed within 30 days from receipt of non-privileged safety information from your legal advisor. Submit any requests for extensions, additional advisors, or other matters to me through HQ AMC/JA. Submit your final report to HQ AMC/JA, and they will forward it to me for approval.

7. In addition to your duties as AIB president, you will serve as the conduit for accident investigation information to the next-of-kin (NoK) and family members of the deceased, and to the public. In order to provide timely information to these individuals, you should proceed to the scene of the accident no later than 48 hours after the arrival of the SIB. After assessing the situation, you may prepare and process an Early Release of Information for release to the NoK and to the public in accordance with AFI 51-503, Chapter 7. You may then seek AMC/CV approval to depart the accident site, pending receipt of the Part I of the SIB report.

8. The HQ AMC/JA point of contact for any questions is Col

SIGNED

ROWAYNE A. SCHATZ, JR.  
Major General, USAF  
Vice Commander

cc:  
HQ AFLOA/JACC  
18 AF/CC/JA

## Y2. APPOINTMENT OF ADDITIONAL MEMBERS, 19 OCTOBER 2015



### DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND

19 October 2015

MEMORANDUM FOR BRIGADIER GENERAL PATRICK X. MORDENTE, 18 AF/CV

FROM: HQ AMC/JA

SUBJECT: Appointment of Additional Accident Investigation Board Members, Class A,  
C-130J, 1 Oct 15 Fatality Mishap in AOR

1. On 2 Oct 15, AMC/CV convened an Accident Investigation Board (AIB) under AFI 51-503 to investigate the above referenced mishap.

2. Pursuant to my authority under AFI 51-503, paragraph 2.1.3., I appoint the following individuals to serve on the AIB:

Lt Col	AIB/MX	19 MXG/CD, LRAFB, AR	Maintenance
Captain	AIB/PM	19 OG/CCE, LRAFB, AR	Pilot
Captain		19 AMDS/SGGF, LRAFB, AR	Medical
MSgt	AIB/LM	HQ AMC/A3TA, Scott AFB, IL	Loadmaster
SSgt	AIB/R	AFLOA/JACC, JB Andrews, MD	Recorder

3. You must ensure that all AIB members are briefed on the requirements of AFI 51-503, paragraph 7.1.3, which prohibit the disclosure of information regarding the AIB investigation until the report is released to the public.

4. The HQ AMC/JA point of contact for any questions is Col e-mail

SIGNED

Colonel, USAF  
Acting Staff Judge Advocate

Attachment:  
Convening Order, 2 October 2015

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### Y3. SUBJECT MATTER EXPERT APPOINTMENT, 19 OCTOBER 2015



#### DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND

19 October 2015

MEMORANDUM FOR BRIGADIER GENERAL PATRICK X. MORDENTE, 18 AF/CV

FROM: HQ AMC/JA

SUBJECT: Subject Matter Expert; Accident Investigation Board (AIB), Class A,  
C-130J, 1 Oct 15 Fatality Mishap in AOR

1. Pursuant to the provisions of AFI 51-503, Paragraph 3.5.1., Lt Col **AIB/PSME** HQ AMC/TEA, has been detailed as a Subject Matter Expert (SME) to assist in your investigation into the 1 Oct 15 mishap.
2. You must ensure that all SMEs are briefed on the requirements of AFI 51-503, paragraph 7.1.3, which prohibit the disclosure of information regarding the AIB investigation until the report is released to the public.
3. The HQ AMC/JA point of contact for any questions is Col e-mail

SIGNED

Acting Staff Judge Advocate

Colonel, USAF

Attachment:  
Convening Order, 2 October 2015

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# Y4. SUBSTITUTE ADDITIONAL MEMBER APPOINTMENT, 22 OCTOBER 2015



## DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND

22 October 2015

MEMORANDUM FOR BRIGADIER GENERAL PATRICK X. MORDENTE, 18 AF/CV

FROM: HQ AMC/JA

SUBJECT: Appointment of Additional Accident Investigation Board Members, Class A,  
C-130J, 1 Oct 15 Fatality Mishap in AOR

1. On 2 Oct 15, AMC/CV convened an Accident Investigation Board (AIB) under AFI 51-503 to investigate the above referenced mishap.
2. Pursuant to my authority under AFI 51-503, paragraph 2.1.3., I relieve Capt previously appointed as Medical Member on 19 Oct 13, and appoint as a replacement:  
  
Captain      **AIB/M**      628 MDG/SGPF, JB Charleston, SC      Medical
3. You must ensure that Captain **AIB/M** is briefed on the requirements of AFI 51-503, paragraph 7.1.3, which prohibit the disclosure of information regarding the AIB investigation until the report is released to the public.
4. The HQ AMC/JA point of contact for any questions is Col e-mail

SIGNED

Colonel, USAF  
Staff Judge Advocate

Attachment:  
Convening Order, 2 October 2015

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## Y5. SUBJECT MATTER EXPERT APPOINTMENT, 28 OCTOBER 2015



### DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND

28 October 2015

MEMORANDUM FOR BRIGADIER GENERAL PATRICK X. MORDENTE, 18 AF/CV

FROM: HQ AMC/JA

SUBJECT: Subject Matter Expert: Accident Investigation Board (AIB), Class A,  
C-130J, 1 Oct 15 Fatality Mishap in AOR

1. Pursuant to the provisions of AFI 51-503, Paragraph 3.5.1., Capt **SME** 60 AMDS/SGPT, has been detailed as a Subject Matter Expert (SME) to assist in your investigation into the 1 Oct 15 mishap.
2. You must ensure that all SMEs are briefed on the requirements of AFI 51-503, paragraph 7.1.3, which prohibit the disclosure of information regarding the AIB investigation until the report is released to the public.
3. The HQ AMC/JA point of contact for any questions is Col e-mail

SIGNED

Acting Staff Judge Advocate

Colonel, USAF

Attachment:  
Convening Order, 2 October 2015

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# Y6. SUBJECT MATTER EXPERT APPOINTMENT, 19 NOVEMBER 2015



## DEPARTMENT OF THE AIR FORCE HEADQUARTERS AIR MOBILITY COMMAND

19 November 2015

MEMORANDUM FOR BRIGADIER GENERAL PATRICK X. MORDENTE, 18 AF/CV

FROM: HQ AMC/JA  
102 E. Martin St, Room N-119  
Scott AFB IL 62225-5012

SUBJECT: Appointment of Additional Accident Investigation Subject Matter Experts (SMEs),  
Class A, C-130J, 1 Oct 15 Fatality Mishap in AOR

1. On 2 Oct 15, AMC/CV convened an Accident Investigation Board (AIB) under AFI 51-503 to investigate the above referenced mishap.

2. Pursuant to my authority under AFI 51-503, paragraph 2.1.3., I appoint the following individuals as SMEs to the AIB:

GS-13	SME1	AFLCMC/WLNEB	C-130J Propulsion Engineer
GS-11	SME2	AFLCMC/WLNEA	C-130 Equipment Specialist

3. You must ensure that all AIB participants are briefed on the requirements of AFI 51-503, paragraph 7.1.3, which prohibit the disclosure of information regarding the AIB investigation until the report is released to the public.

4. The HQ AMC/JA point of contact for any questions is Col e-mail

SIGNED

Colonel, USAF  
Staff Judge Advocate

Attachment:  
Convening Order, 2 October 2015

cc:  
AFLCMC/WLN (GS-15 )

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## TAB Z

### PHOTOGRAPHS, VIDEOS, DIAGRAMS, AND ANIMATIONS (Not Included in Tab S)

Z1. CASE FORWARD OF YOKE (DEMONSTRATED) .....	Z-3
Z2. RAISED ELEVATOR POSITION W/ CASE FORWARD OF YOKE (DEMONSTRATED) .....	Z-4
Z3. ELEVATOR DOWN POSITION (MA) .....	Z-5
Z4. ELEVATOR UP POSITION (MA).....	Z-6
Z5. C-130J-30 CARGO AREA (DEMONSTRATED).....	Z-7
Z6. 463L PALLET WITH TRI-CON (DEMONSTRATED).....	Z-8
Z7. 463L PALLET CHAIN RESTRAINTS (DEMONSTRATED).....	Z-9
Z8. INFRARED IMAGE OF ERO (MA).....	Z-10
Z9. FLIGHT CONTROLS (DEMONSTRATED) .....	Z-11
Z10. FLIGHT DECK HDDS AND HUD (DEMONSTRATED) .....	Z-12
Z11. HUD (DEMONSTRATED) .....	Z-13
Z12. PITCH ANGLES OF MA w/ TIME STAMPS.....	Z-14
Z13. PALLET POSITIONS.....	Z-15
Z14. NVG HARD-SHELL CASE (DEMONSTRATED).....	Z-16
Z15. NVG HARD-SHELL CASE IN LIGHTED CONDITIONS (DEMONSTRATED).....	Z-17
Z16. NVG HARD-SHELL CASE THROUGH NVG LENS (DEMONSTRATED).....	Z-18
Z17. NVG HARD-SHELL CASE IN NIGHTTIME CONDITIONS (DEMONSTRATED) .....	Z-19
Z18. ELEVATOR WITHOUT CASE FORWARD OF YOKE.....	Z-20

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**Z1. CASE FORWARD OF YOKE (DEMONSTRATED)**



**Z2. RAISED ELEVATOR POSITION W/ CASE FORWARD OF YOKE  
(DEMONSTRATED)**



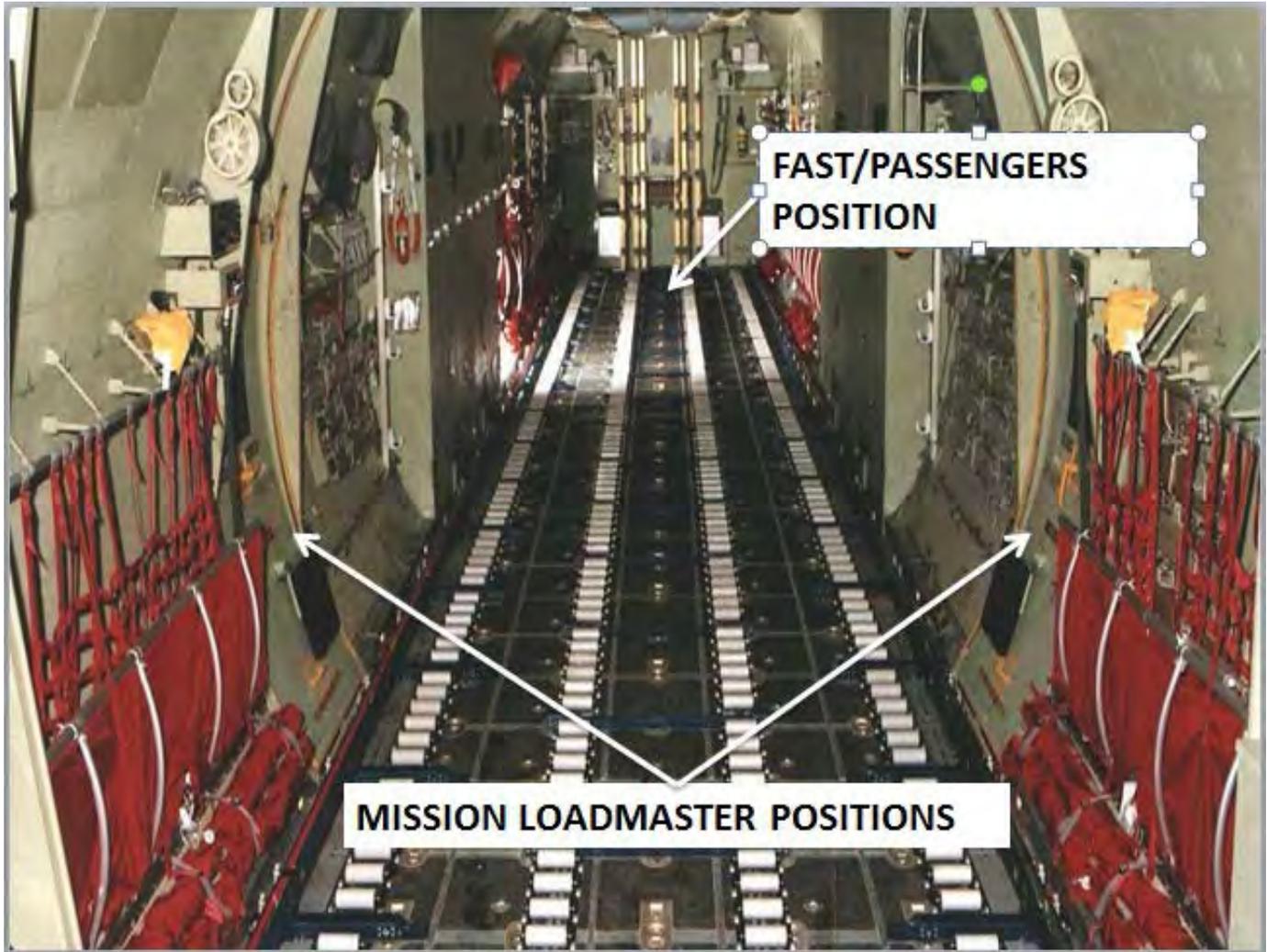
### Z3. ELEVATOR DOWN POSITION (MA)



**Z4. ELEVATOR UP POSITION (MA)**



**Z5. C-130J CARGO AREA (DEMONSTRATED)**



**Z6. 463L PALLET WITH TRI-CON (DEMONSTRATED)**



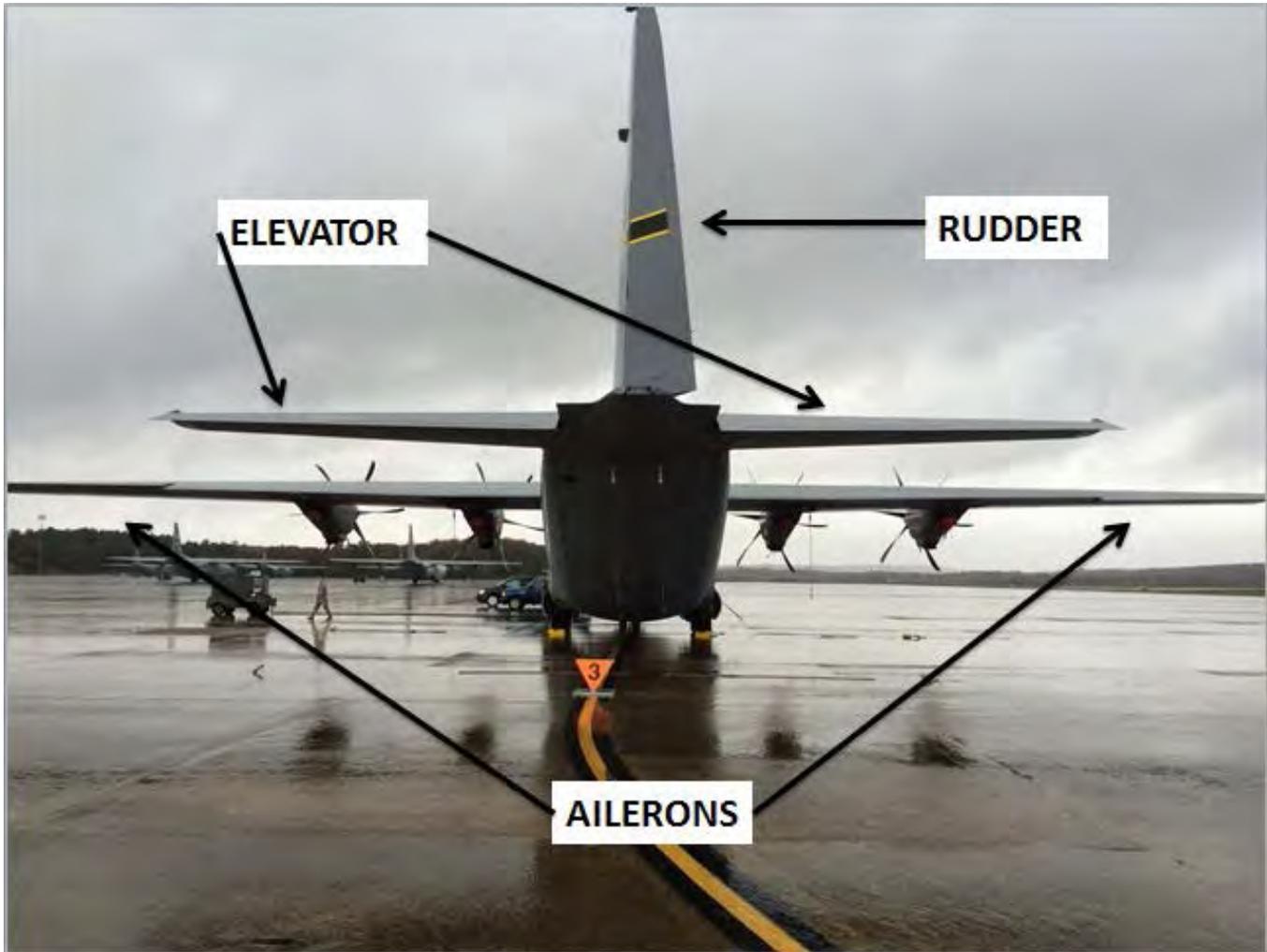
**Z7. 463L PALLET CHAIN RESTRAINTS (DEMONSTRATED)**



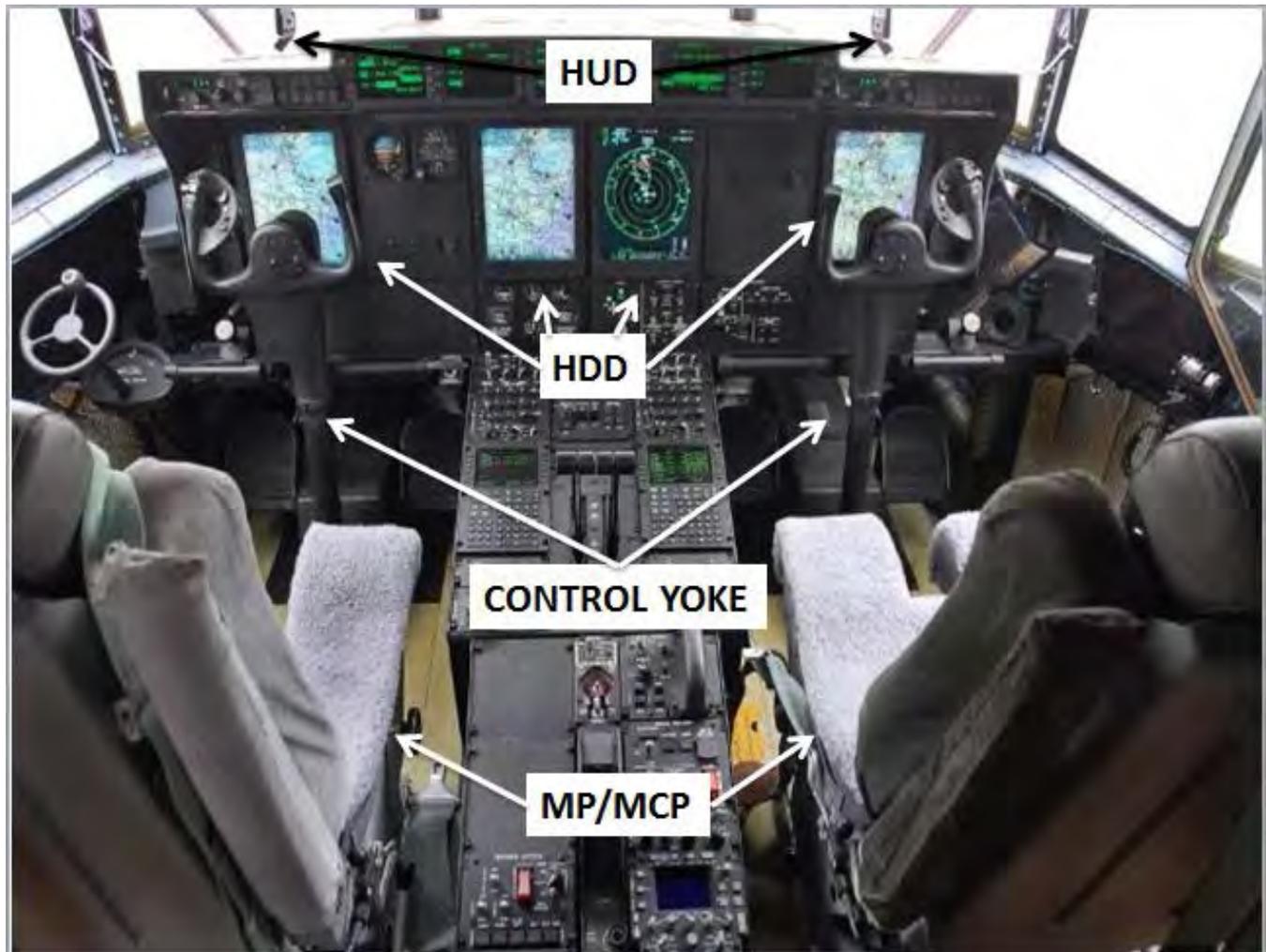
**Z8. INFRARED IMAGE OF ERO (MA)**



## Z9. PRIMARY FLIGHT CONTROLS (DEMONSTRATED)



**Z10. FLIGHT DECK HDDs AND HUD (DEMONSTRATED)**



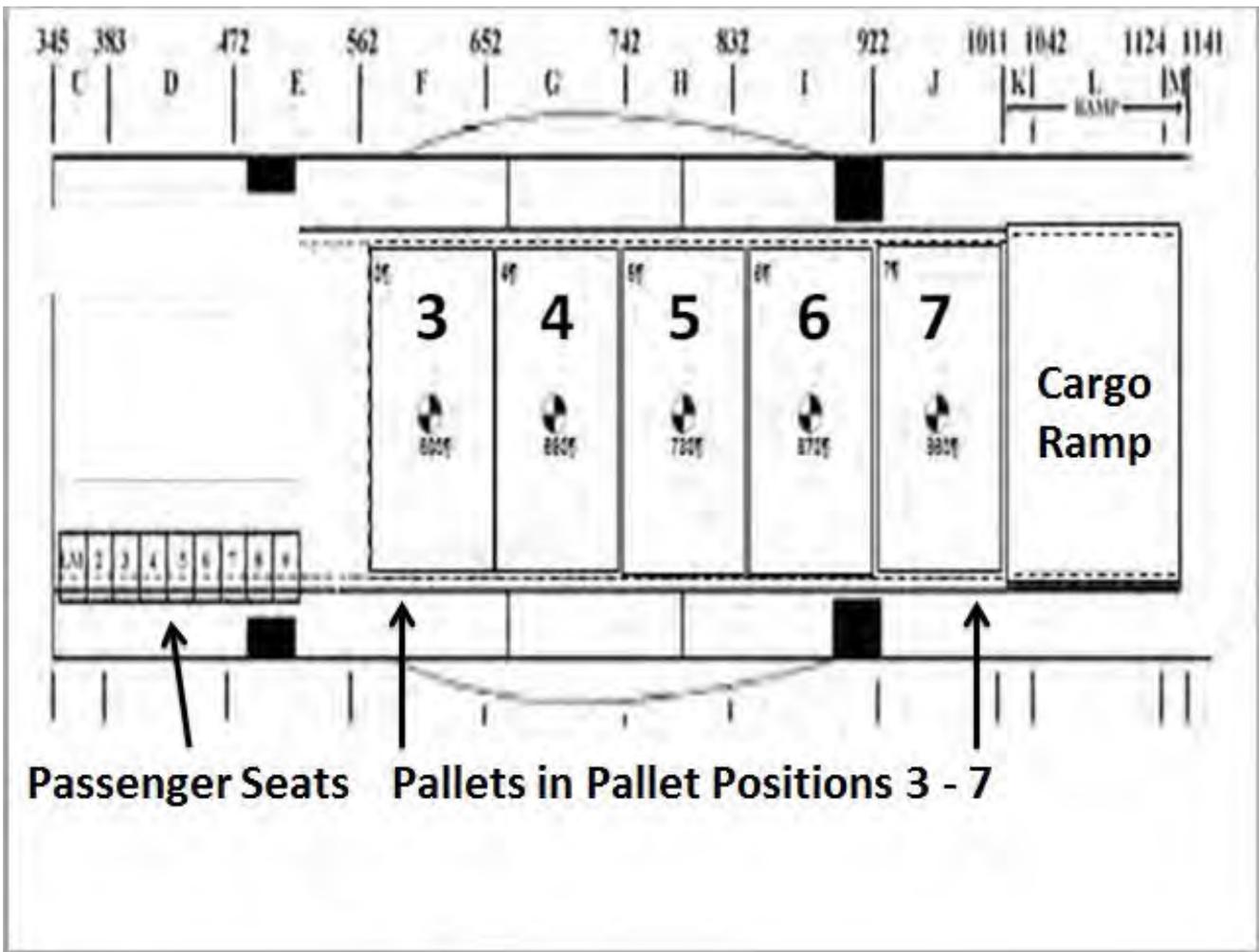
# Z11. HUD (DEMONSTRATED)



**Z12. PITCH ANGLES OF MA w/ TIME STAMPS**

		
Nose Level (00:15:50L)	23 degrees Nose Up (00:16:01L)	35 degrees Nose Up (00:16:03L)
		
42 degrees Nose Up (00:16:07L)	-28 degrees Nose Down (00:16:15L)	-14 degrees Nose down (00:16:19L)

### Z13. PALLET POSITIONS



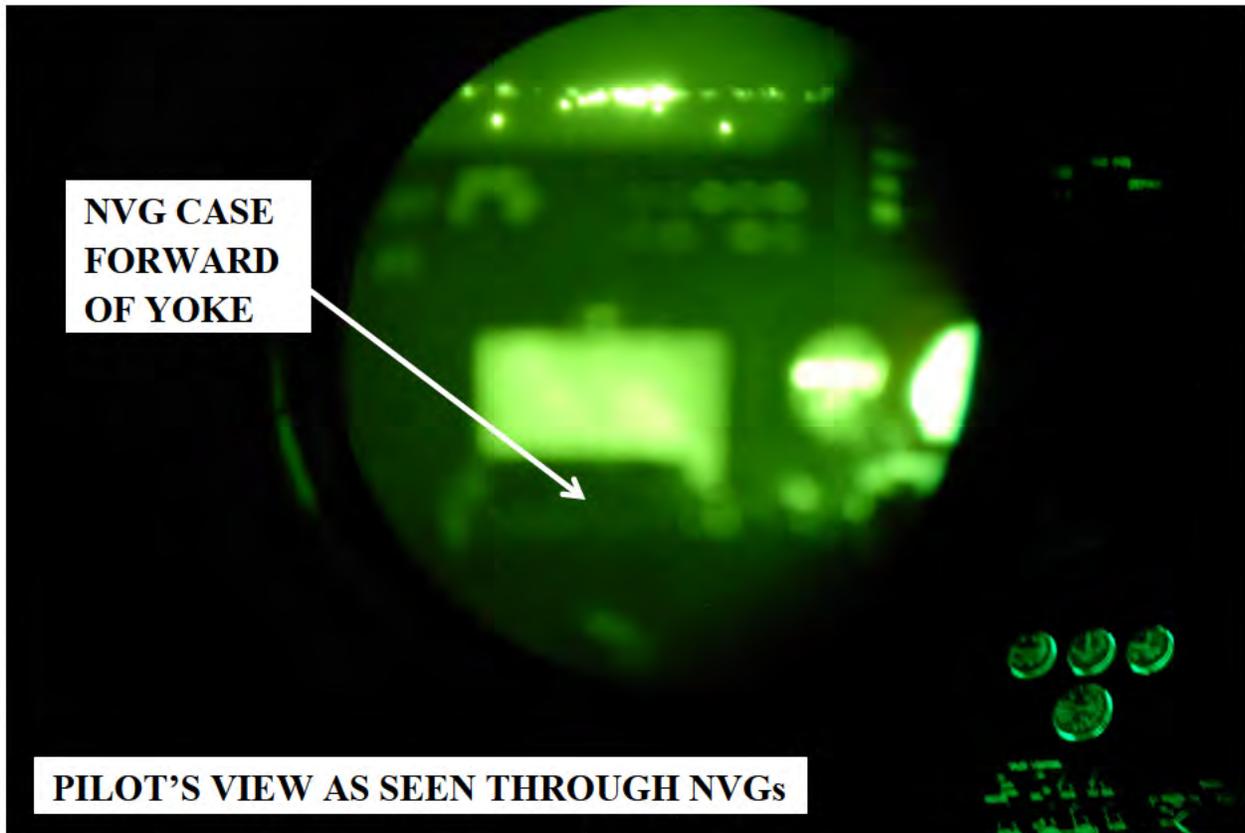
**Z14. HARD-SHELL NVG CASE (DEMONSTRATED)**



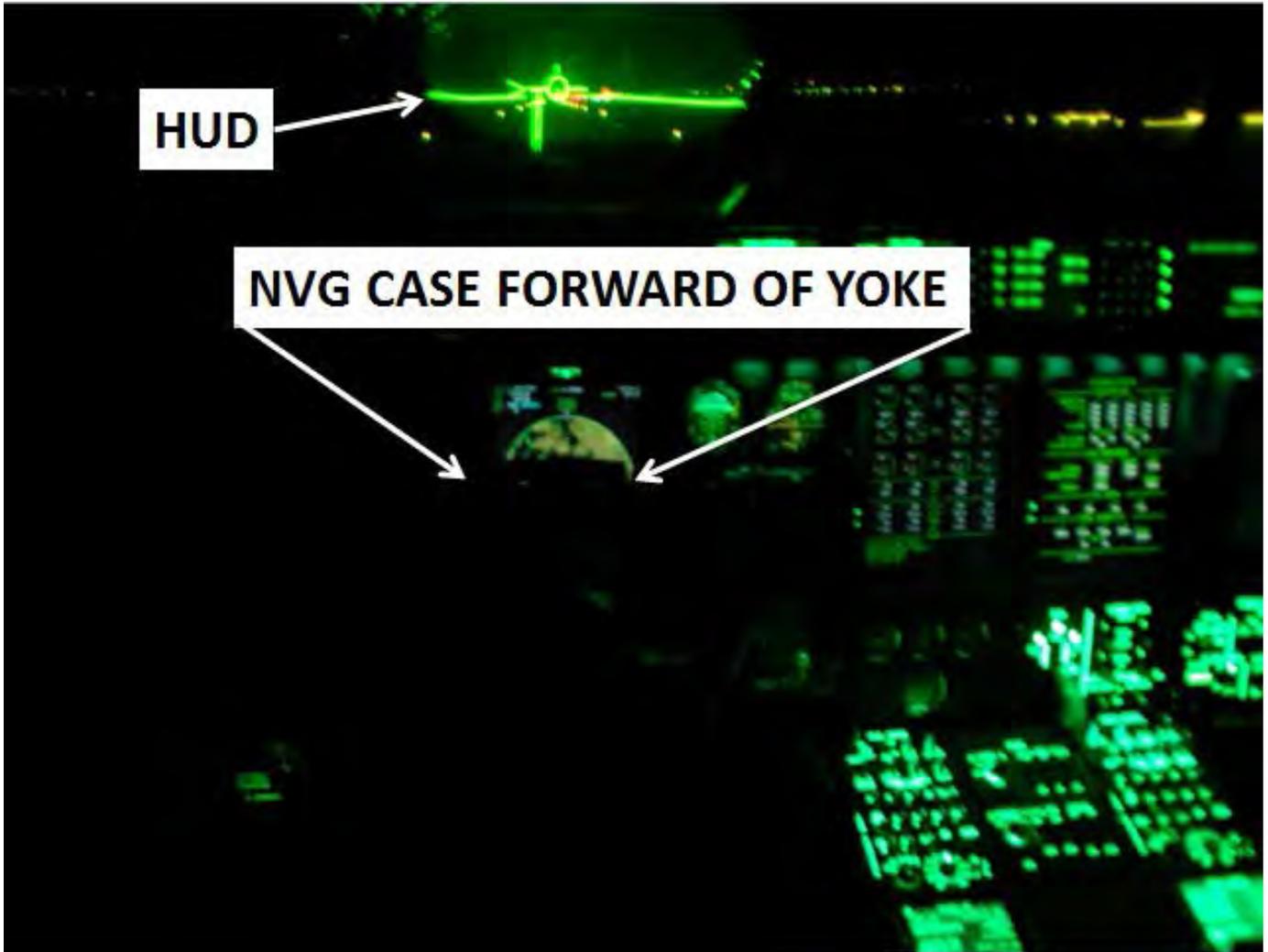
**Z15. NVG HARD-SHELL CASE IN LIGHTED CONDITIONS  
(DEMONSTRATED)**



**Z16. NVG HARD-SHELL CASE THROUGH NVG LENS (DEMONSTRATED)**



**Z17. NVG HARD-SHELL CASE IN NIGHTTIME CONDITIONS  
(DEMONSTRATED)**



**Z18. ELEVATOR WITHOUT CASE FORWARD OF YOKE**



**TAB AA**

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## TAB BB

### APPLICABLE REGULATIONS, DIRECTIVES, AND OTHER GOVERNMENT DOCUMENTS

- BB1. EXCERPTS FROM AFI 91-204, SAFETY INVESTIGATIONS AND REPORTS.....BB-3
- BB2. EXCERPTS FROM AFI 11-2C-130JV3, C-130J OPERATIONS PROCEDURES ...BB-11
- BB3. EXCERPTS FROM AFI 11-202V3, GENERAL FLIGHT RULES.....BB-18
- BB4. EXCERPTS FROM AFH 11-203V1, WEATHER FOR AIRCREWS.....BB-20
- BB5. EXCERPTS FROM AFMAN 11-217V3, SUPPLEMENTAL FLIGHT INFORMATION.....BB-22
- BB6. EXCERPTS FROM TO 00-20-1, EQUIPMENT MAINTENANCE INSPECTION, DOCUMENTATION, POLICIES, AND PROCEDURES .....BB-26
- BB7. EXCERPTS FROM TO 00-20-2, TECHNICAL MANUAL MAINTENANCE DATA DOCUMENTATION .....BB-29
- BB8. EXCERPTS FROM TO 00-5-1, AIR FORCE TECHNICAL ORDER SYSTEM .....BB-32
- BB9. EXCERPTS FROM TO 1C-130J-2-27GS-00-1, TECHNICAL MANUAL GENERAL SYSTEM FLIGHT CONTROL SYSTEMS USAF C-130J SERIES AIRCRAFT ....BB-34
- BB10. EXCERPTS FROM TO 1C-130J-2-29GS-00-1, TECHNICAL MANUAL GENERAL SYSTEM HYDRAULIC SYSTEMS USAF C-130J SERIES AIRCRAFT .....BB-39
- BB11. EXCERPTS FROM TO 1C-130J-2-45GS-00-1, TECHNICAL MANUAL GENERAL SYSTEM DATA TRANSFER AND DIAGNOSTIC SYSTEM USAF C-130J SERIES AIRCRAFT.....BB-41
- BB12. EXCERPTS FROM TO 1C-130J-2-46GS-00-1, TECHNICAL MANUAL GENERAL SYSTEM INTEGRATION AND DISPLAY USAF C-130J SERIES AIRCRAFT ..BB-43
- BB13. EXCERPTS FROM TO 1C-130J-2-70GS-00-1, TECHNICAL MANUAL GENERAL SYSTEM POWER PLANT USAF C-130J SERIES AIRCRAFT .....BB-47
- BB14. EXCERPTS FROM TO 1C-130J-6WC-10, WORK CARDS PREFLIGHT/THRUFLIGHT/POSTFLIGHT/COMBINED PRE/POSTFLIGHT INSPECTION USAF SERIES C-130J AIRCRAFT .....BB-49
- BB15. EXCERPTS FROM TO 1C-130J-6WC-14, WORK CARDS A/B/C1/C2 CHECK INSPECTION USAF SERIES C-130J AIRCRAFT .....BB-52

BB16. RELEASE OF EXCERPTS FROM TO 1C-130J-6WC-14, TO 1C-130J-6WC-10, TO 1C-130J-2-27GS-00-1, TO 1C-130J-2-29GS-00-1, TO 1C-130J-2-45GS-00-1, TO 1C-130J-2-46GS-00-1, TO 1C-130J-2-70GS-00-1 .....	BB-54
BB17. EXCERPT FROM AFI 90-901, OPERATIONAL RISK MANAGEMENT .....	BB-55
BB18. EXCERPTS FROM TO 1C-130J-1, USAF SERIES C-130J AIRCRAFT .....	BB-62
BB19. EXCERPTS FROM TO 1C-130J-9, TECHNICAL MANUAL CARGO LOADING MANUAL ALL USAF SERIES C-130J AIRCRAFT .....	BB-67
BB20. RELEASE OF EXCERPTS FROM TO 1C-130J-1 AND TO 1C-130J-9 .....	BB-77
BB21. EXCERPT FROM AFI 21-101, AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT .....	BB-78
BB22. EXCERPTS FROM TO 00-5-15, AIR FORCE TIME COMPLIANCE TECHNICAL ORDER PROCESS .....	BB-81
BB23. TECHNICAL ORDER RELEASE APPROVAL -- AIR FORCE .....	BB-83
BB24. C-130J-1 AND C-130J-9 RELEASE APPROVAL -- AIR FORCE .....	BB-85
BB25. EXCERPTS FROM AFI 11-202V3, GENERAL FLIGHT RULES .....	BB-87

# BB1. EXCERPTS FROM AFI 91-204, SAFETY INVESTIGATIONS AND REPORTS



DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS AIR FORCE SAFETY CENTER

AFI91-204\_GM2015-01

14 April 2015

MEMORANDUM FOR DISTRIBUTION C  
MAJCOMs/FOAs/DRUs

FROM: AF/SE  
1400 Air Force Pentagon  
Washington DC 20330

SUBJECT: Air Force Guidance Memorandum to AFI 91-204, *Safety Investigations and Reports*

By Order of the Secretary of the Air Force, this Air Force Guidance Memorandum immediately changes AFI 91-204, *Safety Investigations and Reports*. Compliance with this Memorandum is mandatory. To the extent its directions are inconsistent with other Air Force publications, the information herein prevails, in accordance with AFI 33-360, *Publications and Forms Management*.

In advance of a rewrite of AFI 91-204, the attachments to this memorandum are updated to provide guidance changes that are effective immediately.

This Memorandum becomes void after one year has elapsed from the date of this Memorandum, or upon incorporation by interim change to, or rewrite of AFI 91-204, *Safety Investigations and Reports*, whichever is earlier.

KURT F. NEUBAUER, Maj Gen, USAF  
Chief of Safety

Attachments:  
Guidance Changes  
F-35 Safety Investigation Board Guidance/Policy Clarifications

**Attachment**  
**Guidance Changes**

The below changes to AFI 91-204, dated 12 Feb 2014, are effective immediately.

1. In order to provide current versions of Attachment 3 documents, and to make them more user-friendly, they are now located in the Air Force Safety Automated System (AFSAS).
  - a. To access these documents in AFSAS go to AFSAS/Pubs & Refs/Publications Homepage/SIB Support (Go) Package and download the SIB Support Documents.
2. The Department of Defense Human Factors Analysis and Classification System (DoD HFACS) has been updated. In order to implement the new DoD HFACS, Attachment 6 is no longer current and has been replaced with an updated version. The new version (HFACS 7.0) is located in AFSAS. The use of HFACS reporting will not change but guidance will be updated and kept current within AFSAS.
  - a. To access these documents in AFSAS go to AFSAS/Pubs & Refs/Publications Homepage/SIB Support (Go) Package and download the DoD HFACS 7.0 document.

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 91-204**



**12 FEBRUARY 2014  
CORRECTIVE ACTIONS APPLIED ON  
10 APRIL 2014**

**Investigations**

**SAFETY INVESTIGATIONS AND REPORTS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**ACCESSIBILITY:** This publication is available on e-Publishing website at <http://www.e-publishing.af.mil> for downloading or ordering.

**RELEASABILITY:** There are no releasability restrictions on this publication.

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Supersedes: AFI 91-204, 24 September  
2008

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This instruction provides guidance that is common to investigating and reporting all US Air Force mishaps. It applies to all US Air Force (USAF), Air Force Reserve Command (AFRC), and Air National Guard (ANG) military and civilian personnel. Four safety manuals supplement this AFI and provide detailed guidance to discipline-specific mishaps. AFMAN 91-221, *Weapons Safety Investigations and Reports*, provides additional guidance for investigating and reporting nuclear, guided missile, explosives and chemical agents, and directed energy mishaps. AFMAN 91-222, *Space Safety Investigations and Reports*, provides additional guidance for investigating and reporting space mishaps. AFMAN 91-223, *Aviation Safety Investigations and Reports*, provides additional guidance for investigating and reporting aviation mishaps. AFMAN 91-224, *Ground Safety Investigations and Reports*, provides additional guidance for investigating and reporting afloat, ground, and motor vehicle mishaps. AFI 91-204 implements AFD 91-2, *Safety Programs*, and DoDI 6055.07, *Mishap Notification, Investigation, Reporting, and Record Keeping*. AFI 91-204 applies to commanders, managers, supervisors, and safety staffs at all levels, all persons who investigate and report Air Force mishaps, and those persons who handle such reports. This instruction provides guidance regarding the control and use of privileged safety reports and information. **Failure to observe the prohibitions and mandatory provisions in paragraph 3.3.1 by active duty Air Force members, AFRC members on active duty or inactive duty for training, and ANG members in federal status is a violation of Article 92, Uniform Code of Military Justice (UCMJ). Violations by civilian and State (Title 5) employees may result in administrative disciplinary actions without regard to otherwise applicable criminal or civil sanctions for violations of related laws.** This regulation implements North Atlantic Treaty Organization (NATO) Standardization Agreements

**DEPARTMENT OF DEFENSE**  
**HUMAN FACTORS ANALYSIS AND CLASSIFICATION SYSTEM (DOD HFACS) VERSION 7.0**

**Introduction.** Human factors describe how our interaction with tools, tasks, working environments, and other people influence human performance. Human factors are the leading cause of DoD mishaps. The DoD HFACS model presents a systematic, multidimensional approach to error analysis and mishap prevention. Mishap investigators will use DoD HFACS including the applicable HFACS codes in the mishap analysis. Codes pertaining to Non-Factors Worthy of Discussion (NFWOD) and Other Findings of Significance (OFS) will also be included in the mishap analysis but will not be entered into AFSAS.

**Purpose.** This guide provides a template that organizes the human factors identified in the investigation. It is designed for use by all members of an investigation board in order to accurately record all aspects of human performance associated with the individual and the mishap or event. DoD HFACS helps investigators to:

- Perform a more complete investigation
- Classify particular actions (or inactions) that sustained the mishap sequence
- Contribute to the AFSAS database as a repository for detecting mishap trends and preventing future mishaps

**Description.** As described by James Reason (1990), *active failures* are the actions or inactions of individuals that are believed to cause or contribute to the mishap. Traditionally referred to as “error,” they are the last “acts” committed by individuals, often with immediate consequences. In contrast, *latent failures* are pre-existing conditions within an organization which indirectly affect the sequence of mishap events. These latent failures may lie undetected for some period of time prior to their manifestation as an influence on an individual’s actions during a mishap.

Reason’s “Swiss Cheese” model describes the four levels within which active failures and latent failures may occur during complex operations (see figure 1). The holes in the layers represent failed or absent hazard mitigation controls which may contribute to the overall mishap circumstances. Working backward from the mishap, the first level of Reason’s model depicts those *Acts* that most immediately lead to a mishap. Most causal factors are uncovered at this level, however, Reason’s model forces investigators to address the latent failures, or “holes”, within the causal sequence of events which may be overlooked if the focus is limited to individual actions only. Latent failures and conditions are described within the context of Reason’s model as *Preconditions, Supervision, and Organizational Influences*.

**Application.** Mishaps are the result of individual and organizational factors that are further categorized as causal and/or contributory. Individuals whose actions impacted the outcome of the mishap should be identified as “mishap persons” and investigated. Their acts and preconditions will be identified at the Person Level within AFSAS. The context in which these acts and preconditions occurred will be captured as supervisory and organizational factors and will be identified at the Mishap Level. These factors are attributed to the mishap itself and not to a specific person.

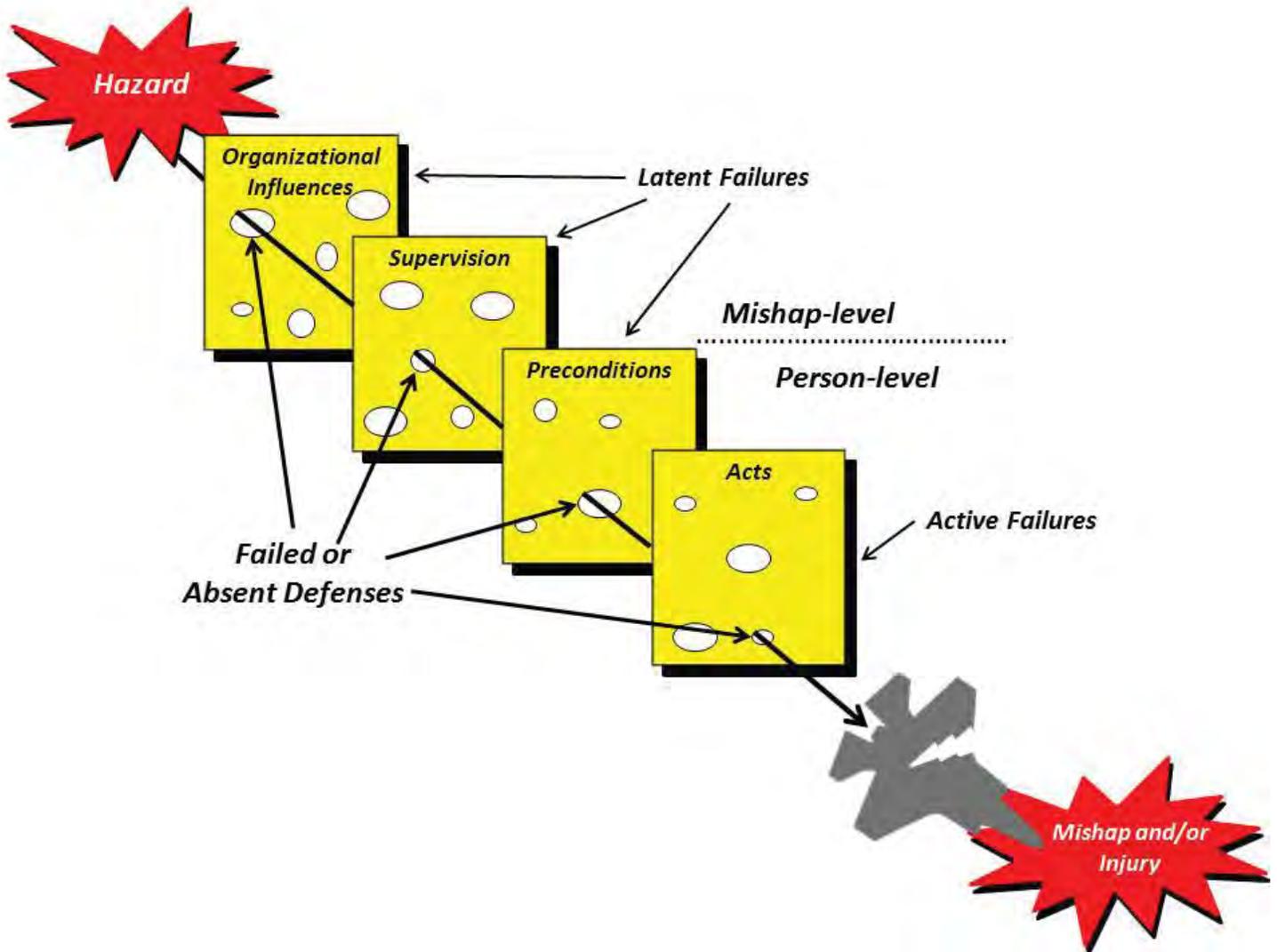
Investigators will be guided on the utilization of HFACS v7.0 through a series of questions within AFSAS. For Class A, Class B, and Class E Physiological mishaps, investigators will be required to answer all questions and provide input at the nanocode level. For Class C and D mishaps and Dull Sword Events, investigators will be permitted to use nanocodes but they will not be required; they will answer the questions only. These new coding rules have been embedded in AFSAS to guide the investigator. Each human factor code that the investigator identifies must be rated as causal or contributory for its influence on the mishap.

- Causal factors are deficiencies which, if corrected, would likely have prevented or mitigated damage and/or injury. Cause does not imply blame. Events/conditions that are highly probable results of other events/conditions are not causal and should be rated as contributory.
- Contributory factors are independent events/conditions that do not directly result in damage and/or injury, but are integral to the progression of the mishap sequence. Contributory factors allow progression of other events/conditions. If an event/condition is considered to be both contributory and causal, rate it only as causal.

### Benefits of DoD HFACS Version 7.0.

1. Structured analysis of human error patterns
  - Detailed, complete and operationally focused
2. Gets to the “Why”, not just the “What”
  - More accurate root cause determination
  - Permits more effective risk management
3. Data-driven approach
  - Supports research across the DoD
  - Easily applied to both new mishaps and previous reports
4. Can be used for more than just operational situations
  - As a brainstorming tool for risk management
  - In developing interview questions
  - Applies to both on- and off-duty mishaps

**Swiss Cheese Model** (figure 1)



**JUDGMENT & DECISION-MAKING ERRORS (AE200):** are factors that occur when an individual proceeds as intended, yet the plan proves inadequate or inappropriate for the situation, e.g. “An honest mistake.”

Inadequate Real-Time Risk Assessment	AE201
Failure to Prioritize Tasks Adequately	AE202
Ignored a Caution/Warning	AE205
Wrong Choice of Action During an Operation	AE206

**AE201 Inadequate Real-Time Risk Assessment:** is a factor when an individual fails to adequately evaluate the risks associated with a particular course of action and this faulty evaluation leads to inappropriate decision-making and subsequent unsafe situations.

**AE202 Failure to Prioritize Tasks Adequately:** is a factor when the individual does not organize, based on accepted prioritization techniques, the tasks needed to manage the immediate situation.

**AE205 Ignored a Caution/Warning:** is a factor when a caution or warning is perceived and understood by the individual but is ignored by the individual.

**AE206 Wrong Choice of Action During an Operation:** is a factor when the individual, through faulty logic or erroneous expectations, selects the wrong course of action.

**PRECONDITIONS**  
**“Latent Failures or Conditions”**

**ENVIRONMENT:** *The environment surrounding a mishap is the physical or technological factors that affect practices, conditions, and actions of individual(s).*

**PHYSICAL ENVIRONMENT (PE100):** are factors such as weather, climate, fog, brownout (dust or sand storm) or whiteout (snow storm) that affect the actions of individual.

Environmental Conditions Affecting Vision	PE101
Vibration Affects Vision or Balance	PE103
Heat/Cold Stress Impairs Performance	PE106
External Force or Object Impeded an Individual’s Movement	PE108
Lights of Other Vehicle/Vessel/Aircraft Affected Vision	PE109
Noise Interference	PE110

**PE101 Environmental Conditions Affecting Vision:** is a factor that includes obscured windows; weather, fog, haze, darkness; smoke, etc.; brownout/whiteout (dust, snow, water, ash or other particulates); or when exposure to windblast affects the individual’s ability to perform required duties.

**PE103 Vibration Affects Vision or Balance:** is a factor when the intensity or duration of the vibration is sufficient to cause impairment of vision or adversely affect balance.

**PE106 Heat/Cold Stress Impairs Performance:** is a factor when the individual is exposed to conditions resulting in compromised performance.

**PE108 External Force or Object Impeded an Individual’s Movement:** is a factor when acceleration forces greater than one second cause injury or prevent/interfere with the performance of normal duties. Do not use this code to capture G-induced loss of consciousness.

**PE109 Lights of Other Vehicle/Vessel/Aircraft Affected Vision:** is a factor when the absence, pattern, intensity or location of the lighting of other vehicle/vessel/aircraft prevents or interferes with safe task accomplishment.

**PE110 Noise Interference:** is a factor when any sound not directly related to information needed for task accomplishment interferes with the individual’s ability to perform that task.

**MENTAL AWARENESS (PC100):** are factors of an attention management or awareness failure that affects the perception or performance of individuals.

Not Paying Attention	PC101
Fixation	PC102
Task Over-Saturation/Under-Saturation	PC103
Confusion	PC104
Negative Habit Transfer	PC105
Distraction	PC106
Geographically Lost	PC107
Interference/Interruption	PC108
Technical or Procedural Knowledge Not Retained after Training	PC109
Inaccurate Expectation	PC110

**PC101 Not Paying Attention:** is a factor when there is a lack of state of alertness or a readiness to process immediately available information. The individual has a state of reduced conscious attention due to a sense of security, self-confidence, boredom or a perceived absence of threat from the environment. This may often be a result of highly repetitive tasks.

**PC102 Fixation:** is a factor when the individual is focusing all conscious attention on a limited number of environmental cues to the exclusion of others.

**PC103 Task Over-Saturation/Under-Saturation:** is a factor when the quantity of information an individual must process exceeds their mental resources in the amount of time available to process the information.

**PC104 Confusion:** is a factor when the individual is unable to maintain a cohesive and orderly awareness of events and required actions and experiences a state characterized by bewilderment, lack of clear thinking or (sometimes) perceptual disorientation.

**PC105 Negative Habit Transfer:** is a factor when the individual reverts to a highly learned behavior used in a previous system or situation and that response is inappropriate for current task demands.

**PC106 Distraction:** is a factor when the individual has an interruption of attention and/or inappropriate redirection of attention by an environmental cue or mental process.

**PC107 Geographically Lost:** is a factor when the individual is at a different location from where one believes they are.

**PC108 Interference/Interruption:** is a factor when an individual is performing a highly automated/learned task and is distracted by another cue/event that results in the interruption and subsequent failure to complete the original task or results in skipping steps in the original task.

**PC109 Technical or Procedural Knowledge Not Retained after Training:** is a factor when the individual fails to absorb/retain required information or is unable to recall past experience needed for safe task completion.

**PC110 Inaccurate Expectation:** is a factor when the individual expects to perceive a certain reality and those expectations are strong enough to create a false perception of the expectation.

## BB2. EXCERPTS FROM AFI 11-2C-130JV3, C-130J OPERATIONS PROCEDURES

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 11-2C-130J  
VOLUME 3



8 DECEMBER 2009

FLYING OPERATIONS

C-130J OPERATIONS PROCEDURES

### COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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OPR: HQ AMC/A3VX

Certified by: HQ USAF/A3O-A  
(Mr. Gerald F. Pease, Jr., SES)

Pages: 222

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This instruction implements Air Force Policy Directive (AFPD) 11-2, *Aircraft Rules and Procedures* and references AFI 11-202, Volume 3, *General Flight Rules*, as well as Air Force Tactics Techniques and Procedures (AFTTP) 3-3.C-130J, *Combat Aircraft Fundamentals—C-130J*. It establishes policy for the operation of the C-130J aircraft to safely and successfully accomplish worldwide mobility missions. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force. This instruction applies to Air Force Reserve Command (AFRC) and Air National Guard (ANG) units.

This publication requires the collection and or maintenance of information protected by the Privacy Act (PA) of 1974. The authorities to collect and or maintain the records prescribed in this publication are Title 37, United States Code, Section 301a and Executive Order 9397, NUMBERING SYSTEM FOR FEDERAL ACCOUNTS RELATING TO INDIVIDUAL PERSONS, November 22, 1943. Forms affected by the PA have an appropriate PA statement. System of records notice F011 AF XOA Aviation Resource Management System (ARMS) (December 26, 2002, 67 FR 78777) applies. The Paper Work Reduction Act of 1974 as amended in 1996 affects this instruction. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the *Air Force Records Disposition Schedule (RDS)* located at <https://www.my.af.mil/gcss-af61a/afrims/afrims/>. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using the AF FORM 847, *Recommendation for Change of Publication*; route AF FORM 847s from the field through the appropriate functional's chain of command.

FD). Only the pilot portion of the crew needs to be augmented when both autopilots are inoperative.

3.7.1.3. Flight examiners administering evaluations will not exceed an augmented FDP.

3.7.1.4. Training, Tactical, Joint Airborne/Air Transportability Training (JA/ATT), and Functional Check Flights/Acceptance Check Flights (FCFs/ACFs) FDP:

3.7.1.4.1. Maximum FDP for training/tactical/FCF/ACF missions is 16 hours (12 hours when both autopilots are inoperative or neither autopilot can be coupled to the FD). Conduct the mission as follows:

3.7.1.4.2. Complete all mission-related events (i.e., FCF/ACF checks, transition events, or tactical events) during the first 12 hours of the FDP. EXCEPTION: ANG and AFRC crews may perform mission-related events on local training missions up to a 16 hour FDP.

3.7.2. Crew Duty Time (CDT). CDT is that period of time an aircrew may perform combined ground/flight duties. Plan the mission so aircrew members may complete post-mission duties within maximum CDT. An aircrew member may perform mission-related duties for other missions when approved by member's home station SQ/CC or equivalent. Maximum CDT is 18 hours for a basic aircrew and 20 hours for an augmented aircrew.

3.7.2.1. CDT and FDP include both military and civilian work. CDT and FDP begin when an individual reports for their first duty period (military or civilian).

3.7.3. Except as outlined below, CDT/FDP begins 1 hour after aircrew alert notification. For self-alerts, CDT/FDP begins at established report time. SQ/CC or equivalent may task aircrew members to perform other duties before they begin flight-related duties or MAJCOM/A3/DO may authorize a C2 agent to alert an aircrew member early: begin CDT/FDP when the first aircrew member reports for those duties.

3.7.3.1. For self-alerts, the PIC shall coordinate early individual/crew mission report times with C2 agents. Begin CDT/FDP when the first aircrew member reports for duty.

3.7.3.2. CDT/FDP Extensions. PICs may request CDT/FDP extensions from MAJCOM/A3/DO. C2 agents shall not ask PICs to exercise this option.

3.7.4. Deadhead Time. IAW AFI 11-401, *Aviation Management*, deadhead time is the time computed traveling in passenger status. MAF aircrew members may deadhead for the purpose of positioning or de-positioning to perform a mobility mission or mission support function. Crewmembers may deadhead for a maximum of 24 hours. OG/CC or equivalent may approve crewmembers to deadhead in excess of 24 hours.

3.7.4.1. Current/qualified aircrew members may perform primary aircrew duties after deadheading, provided they do not exceed a basic FDP (FDP starts at report time for deadhead flight).

3.7.4.2. Aircrew members may deadhead after performing primary crew duties, for a maximum of 24 hours from the time the crewmember's FDP began.

3.7.5. Aircrew Member Support of Aircraft Generation Activities (Pre-flight, cargo up-/off-load, start, and taxi aircraft). Crew rest is required IAW AFI 11-202V3, paragraph 9.7.2. The duty day begins when the aircrew member reports for official duties.

5.4.3. Maximum Effort Takeoff/Landing Policy. Only instructor pilots or a pilot under the direct supervision of an instructor pilot may conduct maximum effort or substandard airfield operations from the right seat.

**5.5. Landing Gear and Flap Operating Policy.** The pilot flying (PF) will command configuration changes. The pilot monitoring (PM) will verify appropriate airspeed and configuration prior to echoing the gear or flap actuation command. The right seat pilot will operate the landing gear and the PM will operate the flaps.

**5.6. Outside Observer/ACM Duties.** Available crewmembers will assist in clearing during taxi operations, and any time the aircraft is below 10,000 feet MSL as crew duties permit.

### **5.7. Seat Belts.**

5.7.1. All occupants will have a designated seat with a seat belt. Crewmembers will have seat belts fastened when occupying a duty position, unless crew duties dictate otherwise.

5.7.2. Loadmasters, or authorized scanners, will only use the permanently installed paratroop door seats during combat or contingency missions with hostilities, or while participating in training missions that enable aircrews to improve their visual threat scanning techniques and procedures. Loadmasters will always have an assigned seat, even if using the paratroop door for scanning. When scanning duties are completed the loadmaster must use their assigned seat for subsequent take-offs and landings in non-threat environments. When used in combat/contingencies, the following conditions must be met:

5.7.2.1. The flight helmet will be worn.

5.7.2.2. Paratroop door armor will be in place.

5.7.2.3. Loadmasters/scanners will restrain themselves by either the primary or secondary method:

5.7.2.3.1. Use the restraint harness depicted in T.O. 13A1-1-1 as the primary means of loadmaster/scanner restraint. Route the harness straps through the support braces forward and aft of the paratroop doors with a girth hitch and attach to the restraint harness riser quick disconnect fittings. Ensure the leg and chest straps are connected. Attach the harness lifeline to a floor/Enhanced Cargo Handling System (ECHS) rail tiedown ring and adjust to limit vertical movement.

5.7.2.3.2. A secondary method is the use of 5000 pound straps routed around each of the supports located forward and aft of the paratroop door. Attach the hook end of the strap to the riser clip of the restraint harness and attach the ratchet end to a tiedown ring on top of the ECHS rails. Wrap the hook of the ratchet with cloth backed tape to ensure it does not separate from the tiedown ring. Attach the lifeline to a floor/ECHS tiedown ring and adjust to limit vertical movement.

5.7.3. All crewmembers will have seat belts fastened during takeoff and landing. Fasten shoulder harness unless crew duties dictate otherwise. Crewmembers performing instructor or flight examiner duties or are in upgrade training to instructor or flight examiner are exempt from seat belt requirements if not occupying a primary crew position; however, they will have a seat available with an operable seat belt.

setting than prescribed may result in premature/unexpected “Altitude-Altitude” advisories and prevent the GCAS “Minimums” alert.

5.18.1.2.1. Straight-In Approaches. Normally set RAD ALT reference to 250 feet (minimum setting).

5.18.1.2.2. Circling Approaches. Normally set RAD ALT reference to 300 feet (minimum setting).

5.18.1.3. When established on a published approach in IMC, or at night when terrain clearance cannot be assured, and an “Altitude-Altitude” special alert is heard, initiate an immediate go-around. Once terrain clearance is confirmed, resume normal operations. In day VMC, the aircrew will evaluate the alert and determine the appropriate course of action (continue the approach or go-around).

5.18.2. Tactical Operations. For modified contour flight, the RADALT should be set no lower than 80% of the planned contour (i.e. for 500 AGL contours, set the RADALT no lower than 400 feet). Other settings may be briefed and used based on terrain and mission needs.

**5.19. Transportation of Pets.** Transporting pets (dogs and cats) in conjunction with the sponsor’s permanent change of station is authorized. Other pets or animals are normally prohibited, but may be moved according to DOD 4515.13R.

**5.20. Alcoholic Beverages.** MAJCOM/A3/DO may authorize the dispensing of alcoholic beverages.

### **5.21. Runway, Taxiway and Airfield Requirements:**

5.21.1. Minimum Runway and Taxiway Requirements. For peace-time do not use runways less than 3,000 feet. Minimum runway width is 80 feet (60 feet for max effort). Minimum taxiway width is 30 feet. The MAJCOM/A3/DO may waive runway/taxiway width requirements.

5.21.2. Normal Operations.

5.21.2.1. The minimum runway required for a normal takeoff is the charted CFL.

5.21.2.2. Normal takeoffs shall not be made when Refusal Speed is less than Ground Minimum Control Speed (V<sub>mcg</sub>). In this condition the PIC will either:

5.21.2.2.1. Download cargo or fuel.

5.21.2.2.2. Wait until weather conditions improve.

5.21.2.2.3. Utilize maximum effort procedures, see paragraph **5.21.6**.

5.21.2.3. Runway Length for Takeoff and Intersection Takeoffs. Normally, takeoffs will be initiated from the beginning of the approved usable portion of the runway. Intersection takeoffs may be made at the discretion of the AC provided the operating environment (i.e., gross weight, obstructions, climb criteria, weather, etc.) allows for a safe takeoff and departure. CNI TOLD computations must be based on the runway remaining.

5.21.5.1. When other than RCR or RSC is used to report the runway conditions, the PIC will refer to the Flight Information Handbook (FIH) for standard ICAO conversions based on general runway condition; be conservative when dealing with unknown conditions (e.g., forward operating bases (FOBs), unpaved runways). Normally, RCR values are not reported for taxiways and ramps. During periods of reported low RCR, the taxiways and ramps may have an even lower RCR than reported for the runway. The runway surface should be considered wet when water on the runway causes a reflective glare.

5.21.5.2. The performance charts used to determine braking action are based on concrete runways. Use the RCR values given in **Table 5.7** when landing on other than concrete surfaces. The RCR values **Table 5.7** are estimates based on operational experience and should be used only as a guide.

**Table 5.7. RCR Values.**

SURFACE TYPE	RCR (DRY)	RCR (WET)
Asphalt	23	12
Aluminum Matting	20	10
M8A1/With Anti-Skid (Pierced Steel Planking, (PSP))	20	8
M8A1/Without Anti-Skid PSP	13	3
Clay	16	5
Crushed Rock	16	5

5.21.5.3. Limit operations on snow, slush and water covered runways to an RSC of 10. This equates to a covering of one inch of slush/water and up to three inches of loose, blowing snow. Performance data does not exist for coverings in excess of these amounts.

5.21.5.4. On runways partially covered with snow or ice, takeoff computations will be based on the reported RSC or RCR for the cleared portion of the runway. A minimum of 40 feet either side of centerline should be cleared (30 feet for maximum effort operations). If 40 feet either side of centerline is not cleared (30 feet for max effort ops), computations will be based on the non-cleared portion.

#### 5.21.6. Maximum Effort Operations.

5.21.6.1. Use Maximum Effort procedures when conditions (runway dimensions and/or obstacles) or directives require their use. Runway widths less than 80 feet require a maximum effort qualified crew. All maximum effort operations must fall in the "Recommended" area of the wind limitations charts unless otherwise approved by the OG/CC. For peace-time, do not use runways less than 3,000 feet long unless waived by the MAJCOM/A3/DO or designated representative.

5.21.6.2. Maximum Effort Takeoff. Use maximum effort takeoff procedures if available runway length is less than CFL.

5.21.6.2.1. Minimum runway length is the charted ADJUSTED MFLMETO. **EXCEPTION:** MAJCOM A3/DO may approve the use of MFLMETO not corrected for  $V_{MCA}$  or  $V_{MU3}$  if mission necessity dictates.

- 5.21.6.2.2. Minimum rotation speed is Adjusted Maximum Effort Rotation Speed ( $V_{R_{max}}$ ). **EXCEPTION:** MAJCOM A3/DO may approve the use of  $V_{R_{max}}$  if mission necessity dictates.
- 5.21.6.2.3. Acceleration Check Time. An acceleration check time is required when refusal speed is less than rotation speed.
- 5.21.6.3. Maximum Effort Landing: Use maximum effort landing procedures whenever the runway available for landing is less than that required for a normal landing. Plan the touchdown within the first 500 feet of usable runway.
- 5.21.6.3.1. The minimum runway required for a maximum effort landing is equal to the charted Maximum Effort landing ground roll plus 500 feet.
- 5.21.6.3.2. Compute landing performance using: two outboard engines in ground idle, two inboard engines in reverse, (“2OB HGI; 2IB REV” in the Performance Manual), and maximum anti-skid braking.

## 5.22. Aircraft Taxi and Taxi Obstruction Clearance Criteria and Foreign Object Damage (FOD) Avoidance .

- 5.22.1. Do not taxi an aircraft within 25 feet of obstructions without wing walkers monitoring the clearance between aircraft and obstruction. With wing walkers, avoid taxi obstructions by at least 10 feet. **EXCEPTION:** IAW AFI 11-218, *Aircraft Operations and Movement on the Ground*, aircraft may taxi into or out of a marked parking spot without marshallsers/wing walkers at home station along fixed taxi lines which have been measured to ensure a minimum of 10 feet clearance from any permanent obstruction. Adjacent aircraft are considered a permanent obstruction provided the aircraft is parked properly in its designated spot and not moving. Aerospace Ground Equipment (AGE) and vehicles are considered a permanent obstruction provided it is parked entirely within a designated area. Areas will be designated by permanent markings such as painted boxes or lines on the ramp or another suitable means.
- 5.22.2. When taxi clearance is doubtful, use one or more wing walkers. If wing walkers are unavailable, the PIC will deplane one or more crewmembers to maintain obstruction clearance and provide marshaling using AFI 11-218 signals. Use wing walkers, deplaned crewmembers, or a crewmember on interphone positioned at the paratroop door(s) or ramp to act as an observer while maneuvering on narrow taxiways. During night taxi operations, marshallsers and wing walkers will have an illuminated wand in each hand. Observers should be in a position to see wing walkers at all times (through door or windows) and communicate with the pilot.
- 5.22.3. FOD Avoidance. Make every effort to minimize the potential for engine FOD. Crews should:
- 5.22.3.1. Carefully review airfield layout during mission planning. Be familiar with taxi routes, turn requirements, and areas for potential FOD.
- 5.22.3.2. Minimize power settings during all taxi operations.
- 5.22.4. Reverse Taxi: The PIC shall coordinate reverse taxi directions and signals with the loadmaster and marshaller (when available). Before reverse taxiing, the loadmaster shall:

or USAF and MAJCOM publications. If cargo is refused or rearranged for these reasons, forward all applicable information, including a copy of the load plan, to MAJCOM standardization and evaluation through standardization channels. AMC personnel attach an AMC Form 54. **EXCEPTION:** The aircraft loadmaster may deviate from load plans to facilitate ease of onload or offload of cargo and to alleviate unnecessary aircraft reconfiguration without submitting documentation. The aircraft loadmaster must take into consideration the next station's cargo configuration requirements and will ensure the aircraft is in proper weight and balance limits.

13.2.1.4. The loadmaster is the on-scene expert for load planning and accepting cargo for airlift. Some loads are not specifically detailed in applicable directives and require the loadmaster to use his or her best judgment, based on training, experience, and knowledge, to determine the best and safest method of loading the cargo. When difficulties arise, they should seek advice of other personnel (i.e., available loadmasters and squadron, group, wing, NAF, or MAJCOM standardization personnel).

13.2.2. At locations without AMC air terminal or traffic personnel, the shipper assumes responsibilities as described in paragraph 13.2.1.1 and provides sufficient qualified personnel and material handling equipment for loading or offloading. Loadmaster's responsibilities and authority are the same as described in paragraphs 13.2.1.2 and 13.2.1.3

13.2.3. During joint airborne air transportability training (JA/ATT), special assignment airlift mission (SAAM), USAF mobility, and contingency missions, the loadmaster can accept DD Form 2133, **Joint Airlift Inspection Record**, as a valid pre-inspection of equipment being offered for air shipment. This form, validated by two joint inspection signatures (user and transporting force), may be used in lieu of the applicable portions of the TO 1C-130J-9CL-1. The DD Form 2133 will not be used to document preparation of hazardous materials. This will be accomplished using the Shipper's Declaration for Dangerous Goods.

**13.3. Emergency Exits and Safety Aisles.** Safety aisles will be according to AFI 11-2C-130JV3, Addenda A and this chapter.

13.3.1. When passengers are seated in side facing seats, the loadmaster will ensure there is sufficient space between the cargo and the seats to permit passenger leg room. **NOTE:** All passenger hand-carried items must be of a size to fit under the seat and must not obstruct the safety aisle. Any items that do not fit under a seat or obstruct an aisleway will be stowed with checked baggage and secured for flight.

13.3.2. At least one unobstructed emergency exit is available for each 20 passengers/troops. (This does not restrict overwater flights if the three overhead escape hatches are available for egress.) Litters and seats erected across an emergency exit are not considered an obstruction.

13.3.3. Passengers/ambulatory patients may not be seated closer than 30 inches in front of palletized netted cargo or cargo secured with straps. When the cargo, either palletized or non-palletized, is secured with chains, the 30-inch spacing is not required. **EXCEPTION:** Maintain 30 inch spacing on AE missions, when carrying occupied litters.

**13.4. Pre-mission Duties.**

13.4.1. Cargo Missions.

## BB3. EXCERPTS FROM AFI 11-202V3, GENERAL FLIGHT RULES

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 11-202,  
VOLUME 3



7 NOVEMBER 2014

*Flying Operations*

**GENERAL FLIGHT RULES**

### COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at [www.e-publishing.af.mil](http://www.e-publishing.af.mil)

**RELEASABILITY:** There are no releasability restrictions on this publication.

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OPR: HQ AFFSA/XOF

Certified by: HQ USAF/A3O  
(Brig Gen Giovanni Tuck)

Supersedes: AFI11-202V3, 22 October 2010

Pages: 75

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This instruction implements AFPD 11-2, *Aircrew Operations*, by prescribing general flight rules that govern the operation of USAF aircraft (manned and unmanned) flown by USAF pilots, pilots of other services, foreign pilots, and civilian pilots. This instruction applies to Air Force activities operating aircraft on loan or lease, to the extent stipulated in the loan or lease agreement; Air Force Reserve Command (AFRC) units; and to Air National Guard (ANG) units. Public Aircraft Operations (PAO) under government contract for Air Force operations will comply with stipulations documented in written declaration of public aircraft status, applicable Title 14 Code of Federal Regulations (CFR) and this regulation. Air Force Instruction (AFI) 11-2 Mission Design Series (MDS) Specific, Volume 3 instructions (e.g., AFI 11-2KC-10, Volume 3) may contain specific operational guidance unique to individual aircraft and crew positions. MDS-specific, Volume 3 instructions will not be less restrictive than this instruction. Address questions concerning this instruction to Headquarters Air Force Flight Standards Agency (HQ AFFSA) at HQ AFFSA/XOF, 6500 S. MacArthur Blvd, Bldg 4, Room 240, Oklahoma City, OK 73169, email: [hqaffsa.xof@us.af.mil](mailto:hqaffsa.xof@us.af.mil). See Attachment 1 for a list of terms and abbreviations.

**Improvement Recommendations:** Use AF Form 847, *Recommendation for Change of Publication*, to recommend changes to this instruction in accordance with (IAW) AFI 11-215, *USAF Flight Manuals Program (FMP)*.

**NOTE:** The reports in this directive are exempt from licensing according to AFI 33-324, *The Air Force Information Collections and Reports Management Program*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records

## Chapter 2

### FLIGHT READINESS

**2.1. Crew Rest.** Crew rest is compulsory for aircrew members prior to performing any duties involving aircraft operations and is a minimum of 12 non-duty hours before the Flight Duty Period (FDP) begins (T-2). Crew rest is free time and includes time for meals, transportation, and rest. This time must include an opportunity for at least 8 hours of uninterrupted sleep. Crew rest period cannot begin until after the completion of official duties.

2.1.1. Aircrew members are individually responsible to ensure they obtain sufficient rest during a crew rest period.

2.1.2. Any official business interrupts the crew rest period. If crew rest is interrupted, individuals will immediately inform appropriate leadership or command and control (C2) and will either begin a new crew rest period or not perform flight duties (T-1). *Exception:* Aircrew may initiate mission-related communication with official agencies without interrupting crew rest.

2.1.3. Exceptions to the 12-Hour Minimum Crew Rest Periods. For continuous operations when basic aircrew FDPs are between 12 to 14 hours, subsequent crew rest may be reduced to a minimum of 10 hours by the PIC in order to maintain a 24-hour work/rest schedule (T-2). "Continuous operations" is defined as three or more consecutive FDPs of at least 12 hours duration with minimum crew rest period.

2.1.3.1. The 10-hour crew rest exception shall only be used to keep crews in 24-hour clock cycles, not for scheduling convenience or additional sortie generation.

2.1.3.2. Any reduction from 12-hour crew rest requires pre-coordination for transportation, meals, and quarters so that crewmembers are provided an opportunity for at least 8 hours of uninterrupted sleep.

**2.2. Flight Duty Period (FDP) (see Table 2 1).** FDP may be waived by MAJCOM/A3 when an ORM assessment determines that mission requirements justify the increased risk. At MAJCOM/A3 discretion, waiver authority may be further delegated to no lower than the operations group commander (or equivalent). Waivers to flight duty limitations may be published in MAJCOM guidance or on a case-by-case basis.

2.2.1. FDP begins when an aircrew member reports for a mission, briefing, or other official duty and ends at final engine shutdown after the final flight of the completed mission. FDP for UAS aircrew member ends at final engine shutdown, final in-flight handover briefing, or final crew swap, whichever occurs last.

2.2.2. When authorized by the waiver authority, the PIC may extend FDP a maximum of 2 hours to compensate for mission delays.

**2.3. Post-Flight Duties.** If official post-flight duties are anticipated to exceed 2 hours, commanders should consider reducing the FDP to ensure the safe completion of those duties.

## BB4. EXCERPTS FROM AFH 11-203V1, WEATHER FOR AIRCREWS

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE HANDBOOK 11-203 VOLUME 1

12 JANUARY 2012

*Flying Operations*

**WEATHER FOR AIRCREWS**



### COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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**RELEASABILITY:** There are no releasability restrictions on this publication.

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OPR: AF/A3OWP

Certified by: AF/A3O-W  
(Dr. )

Supersedes: AFH11-203V1,  
1 March 1997

Pages: 234

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This handbook familiarizes the aircrew member with fundamentals of weather. It serves as a text for flight training programs, all USAF instrument refresher training, flight instruction programs, and various unit and individual flying training programs. It is issued to each instructor and student involved in undergraduate flight training programs as well as to each flying unit. This handbook, when used with related flight directives and publications, provides weather guidance for visual and instrument flight under most circumstances. It is not a substitute for sound judgment. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) using Air Force (AF) form 847, *Recommendation for Change of Publication*; route AF Forms 847 from the field through the appropriate functional's chain of command.

**RECORDS MANAGEMENT:** Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afrims/afrims/afrims/rims.cfm>

### **SUMMARY OF CHANGES**

This document has been substantially revised and should be completely reviewed. This revision reorganizes information into more appropriate sections of the document. Several erroneous figures were removed and improved illustrations were inserted to update aircraft inventory. Some sections were also removed or edited, as they were deemed erroneous or irrelevant for aircrews, or not tractable, and updates information as it relates to weather operations. A new

12.9.1. In the US and Canada, the ceiling is determined by using the summation principle. The summation principle states that the sky cover at any level is equal to the summation of the sky cover of the lowest layer plus the additional sky cover present at all successively higher layers up to and including the layer being considered. A layer is clouds or obscuring phenomena whose bases are approximately at the same level. If there is  $\frac{1}{2}$  of the sky covered at 12,000 ft, and another  $\frac{1}{4}$  of the sky covered at 5,000 ft, the sky above the 5,000 ft layer is assumed to also have clouds at 12,000 ft. This would then result in  $\frac{3}{4}$  of the sky covered with cloud and a BKN ceiling at 12,000 ft. The AMOS derives sky condition instrumentally by detecting the frequency and height of clouds passing over the sensor (ceilometer) over a period of 30 minutes. An algorithm then processes the data from the sensor into data on layers, amounts, and heights of clouds.

## 12.10. METAR Cloud Cover.

12.10.1. In METAR code, the following terms are used to reflect the degree of cloudiness in sky condition evaluations.

12.10.1.1. CLR--Means ~~Clear~~ or the absence of layers of clouds or other obscuring phenomena. Transmitted as ~~CLR~~ at manual weather stations when there are no clouds, and at automated stations when no clouds are at or below 12,000 feet or 25,000 feet when the 25K algorithm is used. **NOTE:** At civilian locations, SKC shall be used at manual locations when no layers are reported.

12.10.1.2. FEW--Means ~~Few~~ or greater than 0/8 up to 2/8 cloud coverage.

12.10.1.3. SCT--Means ~~Scattered~~ or 3/8 to 4/8 cloud coverage.

12.10.1.4. BKN--Means ~~Broken~~ or 5/8 to 7/8 cloud coverage.

12.10.1.5. OVC--Means ~~Overcast~~ or the sky is totally covered with clouds (8/8).

12.10.2. In METAR code the lowest cloud layer prefixed with the contraction ~~BKN~~ or ~~OVC~~ designates the ceiling. ~~VV~~ will be encoded when there is a ground based obstruction completely blocking the sky.

12.10.3. In METAR a partial surface obscuration is reported as ~~FEW000~~, ~~SCT000~~, or ~~BKN000~~. At manual observing airfields the partial obscuration may be clarified in remarks such as ~~FG FEW000~~, ~~FU SCT000~~, or ~~DU BKN000~~. Automated sensors are limited in their ability to detect partial obscurations.

## 12.11. Foreign Ceilings.

12.11.1. As with visibility, some countries have established different criteria regarding the amount of sky cover required to constitute a ceiling. When flying in a foreign country using their weather conditions, aircrews must ask the local weather office to determine exactly what ceiling criteria is used.

## 12.12. Surface Obscuration.

12.12.1. To be classified as obscuring phenomena, precipitation, smoke, haze, fog, or other visibility restricting conditions must extend upward from the surface. An obscured sky occurs when the sky is totally hidden from an observer on the ground. The ceiling will be reported as the vertical visibility from the ground upward into the obstruction. For example,

# BB5. EXCERPTS FROM AFMAN 11-217V3, SUPPLEMENTAL FLIGHT INFORMATION

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE MANUAL 11-217, VOLUME E 3  
23 FEBRUARY 2009  
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*Flying Operations*

## SUPPLEMENTAL FLIGHT INFORMATION

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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Certified by: HQ USAF/AEO-A (Brig Gen Lyn D. Sherlock)

Supersedes: AFMAN11-217V2, 6 August 1998

Pages: 209

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This instruction implements AFD 11-2, *Flight Rules and Procedures*, by providing guidance and procedures for standard Air Force instrument flying. Since aircraft flight instrumentation and mission objectives are so varied, this instruction is necessarily general regarding equipment and detailed accomplishment of maneuvers. Individual aircraft flight manuals should provide detailed instructions required for particular aircraft instrumentation or characteristics. This manual, when used with related flight directives and publications, provides adequate guidance for instrument flight under most circumstances, but is not a substitute for sound judgment. Circumstances may require modification of prescribed procedures. Aircrew members charged with the safe operation of United States Air Force aircraft must be knowledgeable of the guidance contained in this manual. This publication applies to Air Force Reserve Command (AFRC) Units and to the Air National Guard (ANG). This publication is applicable to all USAF aircraft, to include Unmanned Aerial Vehicles (UAVs). Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with AFMAN 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) located at <https://my.af.mil/gcss-af61a/afrims/afrims>. Submit recommended changes or questions about this publication to the Office of Primary Responsibility (OPR) using the AF IMT 847, *Recommendation for Change of Publication*; route AF IMT 847 from the field through the appropriate functional's change of command. Address any questions regarding this manual to HQ Air Force Flight Standards Agency (AFFSA) at [hqaffsa.a3of@tinker.af.mil](mailto:hqaffsa.a3of@tinker.af.mil) or via mail, HQ AFFSA/AJW31AF, Attn: Flight Directives Branch, Building 4 - Room 106, 6500 South MacArthur Blvd, Oklahoma City, OK 73169. POC: \_\_\_\_\_, Major, USAF. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

## SUMMARY OF CHANGES

## Chapter 12

### NIGHT VISION DEVICES (NVD)

**12.1. Introduction.** Arguably one of the most important senses used in flight is vision because it allows a crewmember to quickly ascertain their position in space. The brain rapidly interprets visual cues during daylight. Unfortunately, when we transition to night operations, visual acuity decreases as the illumination levels reduced. To compensate for this and improve our ability to operate in the night environment, the Air Force uses night vision devices (NVDs). NVDs permit us to operate more effectively in the low-illumination environment, but we must remember that NVDs have important limitations. To effectively exploit the night using NVDs, you must recognize those limitations and then exercise proper planning and good judgment.

**12.2. Dark Adaptation.** Dark adaptation is the process by which your eyes increase their sensitivity to lower levels of illumination. People adapt to the dark in varying degrees and at different rates. For most people, the sensitivity of the eye increases roughly 10,000-fold during the first 30 minutes, with little increase after that time. One of the variables that determines the time for dark adaptation to take place is the length of exposure to bright light. If you have not been exposed to long periods of bright light, either through the use of sunglasses or spending the day indoors, you will likely dark adapt normally. On the other hand, if you are exposed to a large amount of unfiltered white light during the day, dark adaptation will take much longer. In extreme cases (snow-blindness or very reflective sand and water conditions), dark adaptation may not be possible for hours or even days. Under normal circumstances, complete dark adaptation is reached in approximately 30 to 45 minutes. If the dark-adapted eye is then exposed to a bright light, the sensitivity of that eye is temporarily impaired, with the amount of impairment depending on the intensity and duration of the exposure. Brief exposure to a bright light source can have minimal effect upon night vision because the pulses of energy are of such short duration. However, exposure to a bright light source (e.g., lightning or flares) for longer than one second can seriously impair your night vision. Depending on the intensity and duration of exposure, recovery to a previous level of dark adaptation can take anywhere between 5 and 45 minutes. The average image luminance in a night vision goggle (NVG) is not particularly bright, and your eyes will be in an intermediate state of dark adaptation when viewing scenes of typical uniformity. Once reaching this intermediate state and after discontinuing goggle use, it will take you approximately 5-8 minutes to regain full dark adaptation. Consequently, NVG use should be discontinued for a period of time prior to your requiring full dark adaptation (e.g., performing a landing without the use of NVGs).

**12.3. Spatial Orientation and NVGs.** Spatial orientation, or the ability to determine one's position and relative movement with respect to some frame of reference (usually the earth's surface), requires inputs from the two components of the visual system. Those two components are focal vision, which is primarily responsible for object recognition, and ambient vision, which is primarily responsible for spatial orientation. The use of NVGs allows aircrews to see objects at night that could not be seen during unaided operations. However, you must use your focal vision to interpret the NVG image. Since interpretation of focal vision is a conscious process, more time and effort is required to maintain spatial orientation during NVG operations than during daytime operations. Additionally, due to the goggles reduced field of view (FOV) and the

lack of visual cues in the periphery, more reliance is placed on focal vision. This reliance on focal vision can increase the aviator's workload and susceptibility to spatial disorientation.

## 12.4. The Night Environment.

12.4.1. Electromagnetic Spectrum (see Figure 12.1). Areas on the electromagnetic spectrum represent both the light that stimulates the unaided eye and the energy intensified by NVGs. The human eye is sensitive to the visible spectrum (approximately 400 to 700 nm), which progresses from violet to blue, green, yellow, orange, then red. A substantial amount of near-infrared (IR) energy (approximately 700 nm to 900 nm) is present in the night sky, so NVGs were designed to be sensitive to both visible and near-IR wavelengths. Thermal imaging systems, such as forward-looking infrared (FLIR) devices, are sensitive to energy in the mid- and far-IR regions.

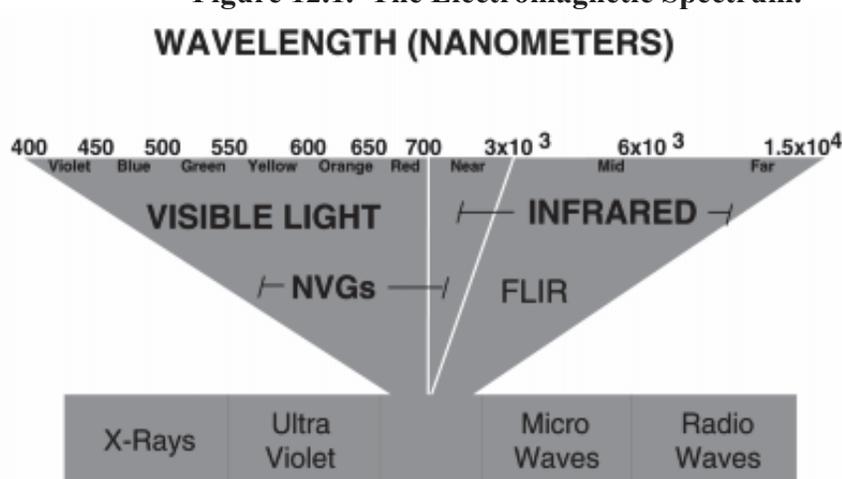
12.4.2. Terms. The following terms are used to describe properties of light:

12.4.2.1. Illuminance. Illuminance (illumination) refers to the amount of light that strikes an object or surface at some distance from the source. An example is the amount of ambient light that strikes the ground from the moon.

12.4.2.2. Luminance. Luminance refers to the amount of light emitted or reflected from a surface area. An example is the apparent brightness of a surface that is illuminated by moonlight.

12.4.2.3. Albedo. Albedo is the ratio between luminance to illuminance, in other words, the ratio of reflected to incident electromagnetic radiation. Simply put, albedo is the fraction of light or other electromagnetic radiation reflected by a surface. For example, a mirror would have an albedo of near 1 or 100% while something that is very dark (black) would have an albedo near zero. Illumination from a light source may remain constant, but the luminance of different terrain features or objects will vary depending on their different albedos. The light source provides illumination, but what our eyes see, and what NVGs intensify, is the energy reflected from objects and terrain.

**Figure 12.1. The Electromagnetic Spectrum.**



difficult to detect waypoints, targets, landing zones (LZ), drop zones (DZ), etc. The term foreshadowing refers to a particular shadowing situation in which near objects may be masked by the shadow created by a distant, higher object. Any of these effects can be a serious threat during low level flight.

12.5.2. Stars. The stars provide about 20 percent of the night sky illuminance on a moonless night. They contribute some visible light, but most of their contribution is in the form of near-IR energy. This means the majority of the energy is invisible to the human eye but is within the response range of NVG image intensifiers.

12.5.3. Solar Light. Skyglow is ambient light from the sun that can adversely affect NVG operations up to 1 ½ hours after sunset and ½ hour prior to sunrise, depending on latitude and time of year. For example, in Alaska skyglow will have a prolonged effect during the time of year when the sun does not travel far below the horizon. Skyglow will affect the gain of the goggle and thus reduce image quality. The effect is similar to flying into a sunset and results in the loss of visual cues when looking either west (sunset) or east (sunrise). Mission planning should take skyglow and its effects into consideration.

12.5.4. Other Background Illumination. The greater portion (approximately 40 percent) of energy in the night sky originates in the upper atmosphere and is produced by chemical reaction (ionization) processes. Other minor sources of night illumination are the aurora and zodiacal light caused by the scattering of sunlight from interplanetary particulate matter.

12.5.5. Artificial Sources. Lights from cities, industrial sites, and fires are also sources of illumination. Light from missile fly-out, weapon flashes, flares, and explosions can adversely affect NVG performance, but the effects are usually short lived due to the nature of the source (e.g., short 20mm/30mm bursts). In this case, the goggle image would return to normal as soon as the offending light source disappears.

**12.6. Night Vision Goggle Characteristics.** The NVG is an advanced night vision system. The goggles chosen by the Air Force are binocular-style, helmet mounted, image intensification devices that amplify visible and near-IR energy. This amplification is a passive process, meaning no emissions are created by the goggles themselves.

12.6.1. Basic Components of the Image Intensifier Tubes. The NVG is a lightweight, fully adjustable binocular assembly consisting of two monoculars, one for each eye. Each monocular amplifies available ambient light and presents an intensified image to one eye. Each monocular is comprised of the following components.

12.6.1.1. Objective Lens. The objective lens of each monocular consists of a combination of optical elements which focus the incoming photons of light onto the photocathode of the intensifier tube. During this process the image is inverted.

12.6.1.2. Minus Blue Filter. Coated onto the inside of the objective lens, the minus blue filter prevents certain wavelengths from entering the intensification process. This allows the use of properly filtered cockpit lighting to aid the pilot in viewing the cockpit instruments with unaided vision underneath the goggles. There are three standard classes of minus blue filters on goggles

**BB6. EXCERPTS FROM TO 00-20-1, EQUIPMENT MAINTENANCE  
INSPECTION, DOCUMENTATION, POLICIES, AND PROCEDURES**

AMC Supplement 1, 5 May 2014

Certified Current 30 Oct 2015

**T.O. 00-20-1**

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**TECHNICAL MANUAL**

**AEROSPACE EQUIPMENT MAINTENANCE INSPECTION,  
DOCUMENTATION, POLICIES, AND PROCEDURES**

(ATOS)

THIS MANUAL SUPERSEDES TO 00-20-1, DATED 1 JUNE 2013.

FOR QUESTIONS CONCERNING TECHNICAL CONTENT OF THIS TECHNICAL MANUAL, CONTACT THE APPLICABLE TECHNICAL  
CONTENT MANAGER (TCM) LISTED IN THE ENHANCED TECHNICAL INFORMATION MANAGEMENT SYSTEM (ETIMS). HQ  
AFMC/A4FI, WPAFB, OH IS THE APPROVAL AND WAIVER AUTHORITY FOR THIS TECHNICAL MANUAL.

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Recommended Change Process outlined IAW TO 00-5-1.

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Published under authority of the Secretary of the Air Force

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**15 OCTOBER 2015**

## **T.O. 00-20-1**

2.15.2 The MAJ inspection is due upon accrual of the number of calendar days established as the inspection interval in the MDS specific -6 TO.

### **2.16 HOME STATION CHECK (HSC) INSPECTION.**

The HSC is an inspection arranged and designed for accomplishment upon expiration of a specified short-term calendar interval. This inspection is due at the calendar interval specified in the MDS specific -6 TO. Send HSC schedule deviation requests to the Lead Command functional manager. Units will not request an HSC deviation unless the deviation exceeds the overfly authorized by the MDS-specific -6 TO (if applicable). Refer to paragraph 2.13.4.1 thru 2.13.4.1.14 for submittal requirements. Since the HSC is an integral part of the isochronal concept, compute this date from the completion of the last HSC/isochronal inspection. Accomplish the inspection in conjunction with minor and major inspections.

### **2.17 PROGRAMMED DEPOT MAINTENANCE (PDM).**

2.17.1 PDM is an inspection requiring skills, equipment, and/or facilities not normally possessed by operating locations. Individual areas, components and systems are inspected to a degree beyond MDS specific -6 TO requirements. Field level tasks may be accomplished at PDM if their accomplishment is economically feasible. The SM will, in coordination with the using agency, schedule the PDM inspection at, or prior to, the scheduled due date.

2.17.2 Aerospace vehicles under the isochronal concept do not accrue MDS specific -6 TO inspection days towards the next ISO during PDM. This includes aerospace vehicle input to a depot for an Analytical Condition Inspection (ACI). When an aerospace vehicle exceeds the PDM cycle, annotate a Red Dash on the prescribed forms. If an aerospace vehicle exceeds the PDM cycle by 90 days, the Red Dash will be upgraded to a Red X unless the SM grants an extension.

### **2.18 AEROSPACE VEHICLE MANUFACTURER INSPECTIONS.**

2.18.1 Letter checks consist of A through D. "A/B" checks are considered minor inspections and are usually performed at home station. "C/D" checks are considered major inspections and are usually performed at a Depot facility.

2.18.2 The letter check concept is specified in either flying hours or calendar days. The SM ensures the inspection period is properly established to meet maintenance and engineering requirements.

2.18.3 Lead Commands, with SM concurrence, approve deviations to schedules if letter check inspections cannot be met IAW MDS-specific -6 TO requirements.

2.18.4 Accrual of inspection days, while an aerospace vehicle is in DJ status awaiting depot input, or undergoing UDLM, is dependent on the MDS specific -6 TO or maintenance planning document criteria for the specified airframe.

### **2.19 NO-FLY CALENDAR INSPECTIONS.**

2.19.1 Thirty (30)-Day Inspection. When an aerospace vehicle does not fly for more than 30 consecutive days, it requires a BPO before the aerospace vehicle is returned to operational status in addition to any -6 or -2 TO requirements that exist. This paragraph does not apply to aerospace vehicles that are on alert where recurring visual inspections and operational checks are accomplished.

2.19.1.1 If no BPO inspection exists, perform a pre-flight or equivalent inspection. This will be construed as a minimum 30-day calendar inspection and the GP/CC will determine whether additional inspection or maintenance work is required.

2.19.1.2 Aerospace vehicles that have completed a phase or ISO inspection during the 30-day period will use the phase/ISO post-dock date to start the 30-day no-fly clock.

2.19.2 Ninety (90)-Day Inspection. When an aerospace vehicle does not fly for 90 consecutive days (does not apply to ground training and alert/immediate response aerospace vehicles where recurring visual inspections and operational checks are accomplished), accomplish the following before the aerospace vehicle is returned to operational status if no -6 or -2 TO requirements exist:

2.19.2.1 Perform a BPO or equivalent inspection.

2.19.2.2 Perform an operational check of all functional aerospace vehicle systems except landing gear retraction, unless specified in the MDS-specific -6 or -2 TO.

2.19.2.3 Accomplish all lubrication requirements.

**5.7 AFTO FORM 781A, MAINTENANCE DISCREPANCY AND WORK DOCUMENT (FIGURE 5-3 THROUGH FIGURE 5-6).**

5.7.1 Use the AFTO Form 781A to document each discrepancy discovered by aircrew or maintenance personnel. Exception: Upon discovery of battle damage, the finder will make an initial Red X entry in the aircraft's AFTO Form 781A which reads "Aircraft sustained battle damage, see AFTO Form 97." From this point, all discrepancies resulting from battle damage will be documented on AFTO Form 97/97A. See TO 1-1H-39, General Aircraft Battle Damage Repair (ABDR) technical manual, for specific instructions on documenting aerospace vehicle battle damage repairs.

5.7.2 Maintenance personnel or aircrew trainer technician/operator will ensure that sufficient copies of the AFTO Form 781A are aboard the aerospace vehicle or in the AFTO Forms 781 binder or available at the Aircrew Training Device (ATD). Maintenance or aircrew trainer technician/operator will complete blocks 2 through 5.

5.7.2.1 Transcribe open discrepancies to a new AFTO Form 781A, remove the AFTO Form 781A from the binder, and forward removed forms to the work center office. After the responsible supervisor reviews and ensures the entries are accurate, forward the AFTO Form 781A to the documentation activity responsible for filing (maintain ATD AFTO Form 781A's at the work-center).

5.7.3 Complete entries for the AFTO Form 781A as follows:

5.7.3.1 Minimum heading requirements for double-sided AFTO Form 781A forms will be: *From, MDS, Serial Number* on page one and all odd numbered pages and *Page Number* on all pages. When single-sided forms are used the minimum heading requirements are: *From, MDS, and Serial number and Page Number* on all pages.

5.7.3.2 "FROM." Enter the date the form was initiated. Example: YYYYMMDD.

5.7.3.3 "TO." When closing out a set of forms enter the date the form was closed out and removed from the binder. Example: 20090420. The "FROM" date of a new form will always be the same as the "TO" date on the form that is closed out. This entry provides a positive means of determining whether any forms are missing from the aerospace vehicle file. Securely fasten all forms together to prevent loss.

5.7.3.4 "MDS." Enter the aerospace vehicle mission, design, and series designator. Example: C-130H.

5.7.3.5 "SERIAL NUMBER." Enter the aerospace vehicle serial number. Example 85-1428, 65-14828.

5.7.3.6 "PAGE." Enter the page number. On two-sided forms the front and back of the form will be considered as separate pages and will be numbered accordingly.

5.7.3.7 "PAGE\_\_OF\_\_PAGES." When closing out a set of forms enter the total number of pages on page one only. Example: Page 1 of 8 Pages.

5.7.3.8 "SYM BLOCK." Enter the proper symbol of each discrepancy documented.

5.7.3.9 "JCN." Enter the job control number.

5.7.3.10 "DATE DISC." Print the date discrepancy is discovered.

5.7.3.11 "DOC NUMBER." Enter the supply document number, if part(s) is/are back-ordered.

5.7.3.12 "CF 781A," "XF 781K." When a new AFTO Form 781A is initiated, uncorrected discrepancies will be carried forward to a new AFTO Form 781A and discrepancies other than Red X items may be transferred to the AFTO Form 781K. When an individual transcribes a discrepancy to the AFTO Form 781K or a new AFTO Form 781A, in addition to checking the appropriate block, they will also sign the "CORRECTED BY" block with their minimum signature. Downgraded Red Xs will never be transferred to the AFTO Form 781K.

5.7.3.12.1 "CF 781A." When a discrepancy is carried forward to a new AFTO Form 781A, the individual transcribing the discrepancy will place a check mark in the CF 781A box. Transcribe the SYM, JCN, original date discovered, discrepancy and, if applicable, the supply document number. The individual transcribing the discrepancy will print the name and employee number of the individual who made the initial entry.

5.7.3.12.2 "XF 781K." If the discrepancy is to be transferred to the AFTO Form 781K, place a check mark in the XF 781K box. Transcribe the SYM, JCN, original discrepancy and, if applicable, the supply document number.

**BB7. EXCERPTS FROM TO 00-20-2, TECHNICAL MANUAL  
MAINTENANCE DATA DOCUMENTATION**

**TO 00-20-2**

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**TECHNICAL MANUAL**

**MAINTENANCE DATA DOCUMENTATION**

**(ATOS)**

THIS PUBLICATION SUPERSEDES TO 00-20-2 DATED, 1 SEPTEMBER 2010.

FOR QUESTIONS CONCERNING TECHNICAL CONTENT OF THIS TECHNICAL MANUAL, CONTACT THE APPLICABLE TECHNICAL CONTENT MANAGER (TCM) LISTED in the Enhanced Technical Information Management.

HQ AFMC/A4UE, WPAFB, OH IS THE APPROVAL AND WAIVER AUTHORITY FOR THIS TECHNICAL MANUAL.

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**1 NOVEMBER 2012**

*C-130J, T/N 08-3174, 2 October 2015*

BB-29

2.2.5.1.1 Allocate flying hours and/or sorties per MDS and Program Element Code (PEC).

2.2.5.1.2 Monitor the utilization and/or operation of the fleet.

2.2.5.1.3 Determine aircraft configuration identification.

2.2.5.1.4 Provide selected weapon system status information.

#### 2.2.5.2 **PPS:**

2.2.5.2.1 Failure analysis and/or trending.

2.2.5.2.2 Warranty and/or guarantee tracking support.

2.2.5.2.3 Evaluate equipment maintenance concepts and plans.

2.2.5.2.4 Identify causes of high downtime or excessive support impacts.

2.2.5.2.5 Gauge weapon system support.

2.2.5.2.6 Aircraft debriefing analysis.

#### 2.2.5.3 **GCSAS:**

2.2.5.3.1 Provide cradle-to-grave tracking of serially-controlled configuration items.

2.2.5.3.2 Administration and management of TCTO data.

2.2.5.3.3 Administration and management of approved configuration data.

2.2.5.3.4 Administration and management of actual configuration and time-change inspection data.

2.2.6 **Accuracy of Data.** IMDS data will be validated prior to entry into the database by tables pushed down to the source of entry. Mathematical calculations will be one hundred percent accurate to four positions right of any decimal point, when the numbers are expressed in scientific notation. It is the intent of the AF that all MDD systems should have the same edits and use the same push down tables.

### 2.3 **IMDS (G105).**

2.3.1 **Purpose.** IMDS is the AF primary, production-oriented, base-level automated MMIS. The system supports all aircraft, Spacelift Assets, C-Es, and S-E maintenance activities at bases worldwide, Air National Guard and Air Force Reserve sites, and selected North Atlantic Treaty Organization (NATO) locations. IMDS is designed to provide base-level maintenance personnel the capability to:

- input data as actions occur and receive information, upon demand, at remote terminals in the maintenance complex;
- receive and edit input data, store the data in the appropriate records and files, and produce management notices;
- produce reports that contain either summarized or detailed data;
- load all data relative to equipment to be maintained, the maintenance organization, its facilities and personnel to the computers' files as part of the initial system implementation;
- capture data necessary to update files and produce off-base reports as part of the scheduling and control process;
- aircraft database information for use in controlling and monitoring the on-going activity of maintenance and providing decision-making information tailored to specific needs.

IMDS automates aircraft history, aircraft scheduling, and aircrew debriefing processes and provides a common interface for entering base-level maintenance data into other standard logistics management systems.

2.3.2 **Objectives.** The objectives of the IMDS system are:

2.3.2.1 Eliminate and/or reduce nonproductive administrative tasks and improve efficiency.

2.3.2.2 To ensure that AF materiel is serviceable, operable, and properly configured.

## CHAPTER 10

### AFMC ACTIONS IN SUPPORT OF MDD

#### 10.1 GENERAL.

This chapter provides guidance for establishing and maintaining work unit code tables in the Reliability and Maintainability Information System (REMIS), establishes Time-Compliance Technical Order (TCTO) responsibilities, and assigns responsibilities to the Air Force Sustainment Centers (AFSCs), Air Logistics Complexes (ALCs), System Program Director (SPD), Program Group Manager (PGM), Material Group Manager (MGM), and Air Force Metrology & Calibration Center (AFMetCal) for collecting and reporting depot maintenance data.

#### 10.2 SINGLE MANAGER RESPONSIBILITIES.

The overall responsibility for the performance of the weapon system/equipment and its components rests with the single manager. This responsibility includes monitoring the Reliability and Maintainability (R&M) of the component parts of the system. This oversight requires accurate data be available on the performance of the system and its component parts whether managed by a single manager or by a separate commodity manager. To ensure R&M data is accurate requires constant vigilance over the completeness of the edit tables in the AF Maintenance Data Documentation (MDD) systems. The following delineates those specific responsibilities.

**10.2.1 Work Unit Code (WUC) Tables.** WUC Tables provide the hierarchical breakdown of the systems and subsystems for MDD reporting. The master WUC tables are maintained in REMIS and transmitted to the field for use in editing data. Table accuracy must be of primary concern, since maintenance actions cannot be reported from field or depot level without accurate tables.

10.2.1.1 The WUC tables should be developed, established in REMIS and transmitted to the appropriate data system prior to deployment of the weapon system. Procedures for maintaining the tables in REMIS and transmitting updates to field offices are in the REMIS users manual.

10.2.1.2 Establishing of WUCs for commodities installed on a weapons system must be coordinated between the SPD, PGM and/or MGM.

10.2.1.3 Serial-tracked/time-change indicators must be set when required, otherwise time-change data is not recorded. Serial tracking may be selected when required but JUDICIOUS USE MUST BE MADE OF THIS CAPABILITY BECAUSE IT CAUSES ADDED WORK FOR THE FIELD MAINTENANCE PERSONNEL.

10.2.1.4 Block numbers must be added to the WUC tables as applicable.

10.2.1.5 When a weapon-system-on-weapon-system relationship exists, the relationship will be established via SRD table records. Subordinate system WUCs must be loaded to their own equipment WUC table. If tracked using ID-on-ID, subordinate end-item equipment WUCs are no longer required to be included in the higher end-item WUC table. The following procedures apply:

10.2.1.5.1 The WUC manager for the subordinate system shall maintain the WUC table for the subordinate system. The WUC manager is responsible for making changes and transmitting them to the users.

10.2.1.5.2 The subordinate system WUC manager shall notify the primary system WUC manager by phone, FAX, or electronic-mail of any WUC changes to be accomplished on the primary system WUC table. This notification shall be followed by an AFTO Form 22.

10.2.1.5.3 The primary system WUC manager shall make the changes to the WUC table for the primary system and transmit them to the users.

**10.2.2 Time-Compliance Technical Orders (TCTOs).** TCTOs are issued against a weapon system to modify the system or to perform a critical inspection. In either case, it is critical that compliance be closely monitored.

**BB8. EXCERPTS FROM TO 00-5-1, AIR FORCE TECHNICAL ORDER SYSTEM**

**TO 00-5-1**

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**TECHNICAL MANUAL**

**AF TECHNICAL ORDER SYSTEM**

(ATOS)

THIS PUBLICATION SUPERSEDES TO 00-5-1, DATED 1 APRIL 2014.

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*C-130J, T/N 08-3174, 2 October 2015*

BB-32

2.4.3 Checklists. Checklists provide abbreviated step-by-step procedures for operation and maintenance of systems and equipment in the sequence deemed most practical, or to determine operational readiness of equipment and minimum serviceable condition. Not every task or common maintenance practice must be or will be covered by a checklist. A checklist may be published when one or more of the following criteria exist:

2.4.3.1 When sequential steps must be followed to preclude potential damage or degradation to equipment that would reduce operational readiness or cause catastrophic failure.

2.4.3.2 To preclude potential injury to personnel and/or damage to equipment unless prescribed sequence time-phased procedures are followed.

2.4.3.3 When interaction or communication between two or more differing specialty skills is involved in accomplishing a function.

## 2.5 BRIEF MANUALS.

TOs are considered to be brief manuals when they are twenty pages or less in length. Brief manuals only require an abbreviated title page with no additional front matter. These manuals can have chapters or sections that begin on left- or right-hand pages with no blank pages; contain more than one chapter or section on a page; have pages, paragraphs, illustrations and tables numbered consecutively throughout the manual with single Arabic numerals; and contain the words "THE END" following text on the last page. Brief manuals are always revised, never changed.

## 2.6 TIME COMPLIANCE TECHNICAL ORDERS (TCTO).

See [Figure 2-6](#).

TCTOs are the authorized method of directing and providing instructions for modifying military systems and end items or performing one-time inspections. TCTOs are categorized as Immediate Action, Urgent Action, Routine Action, Routine Safety Action and Record. The category determines the compliance period. Detailed procedures on TCTO processes are provided in TO 00-5-15, Air Force Time Compliance Technical Order Process.

## 2.7 SUPPLEMENTAL MANUAL TECHNICAL ORDERS.

These TOs contain instructions for use in conjunction with data contained in their parent TOs and are not stand-alone publications. The title page and a TO Catalog note will state: "This manual is incomplete without TO XXXXXX-XX." Supplemental manuals are not temporary updates like TO supplements, and are assigned a separate TO "dash" number. Although supplemental manuals are ordered like any other TO, the basic TO must also be ordered to provide complete procedures/data. Supplemental manuals may be used to publish classified data while allowing the parent manual to remain unclassified, to publish data provided by a source other than the Program Manager (PM) or SCM responsible for the TO, and/or to publish data in a form other than the parent TO. EXAMPLES: 1) a table containing classified weapon data used with a weapons delivery TO in building mission profiles; 2) aircraft deicing criteria provided by the Federal Aviation Administration (FAA); and 3) rapidly-changing data published on the Internet to improve the timeliness and accuracy of the technical data.

## 2.8 JOINT-USE PUBLICATIONS.

See [Figure 2-7](#).

Technical manuals (TM) developed for other services or government departments are authorized for use by Air Force personnel if the TMs meet Air Force operational and maintenance needs. (See AFJI 21-301, Interservicing of Technical Manuals and Related Technology and AFI 63-101/20-101.) Joint-use publications may be integrated into the TO system, assigned TO numbers, indexed, distributed, stored, reprinted, maintained and rescinded in the same manner as any other Air Force TO.

## 2.9 COMMERCIAL OFF-THE-SHELF (COTS) MANUALS.

COTS manuals support equipment designed and manufactured for commercial use are furnished or sold by equipment manufacturers to customers. COTS manuals commonly provide operating instructions, technical information for installing, servicing and repairing the equipment item and a parts list to assist in ordering replacement parts. Commercial flight manuals developed according to Air Transport Association (ATA) Specification 100 may also be used. COTS manuals and

**BB9. EXCERPTS FROM TO 1C-130J-2-27GS-00-1, TECHNICAL MANUAL GENERAL  
SYSTEM FLIGHT CONTROL SYSTEMS USAF C-130J SERIES AIRCRAFT**

**TO 1C-130J-2-27GS-00-1**

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**GENERAL SYSTEM**

**FLIGHT CONTROL SYSTEMS**

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**15 JANUARY 2004**

**CHANGE 9 - 1 JULY 2015**

## Section I. FLIGHT CONTROL SYSTEMS

### 1-1 GENERAL.

The flight control systems of the C-130 airplane include the primary flight controls, trim systems, the flaps, and portions of the stall warning system. The overall function and operation of the flight control systems are described in this section. Detailed descriptions of each system are presented in subsequent sections of this manual.

### 1-2 PRIMARY AND SECONDARY FLIGHT CONTROLS.

(See figure 1-1 and figure 1-2.) The primary flight controls include the ailerons, rudder, and elevators. The secondary flight controls include the aileron trim, rudder trim, elevator trim, and flap control systems. Flight controls are used to maintain the attitude and directional control of the airplane. Two complete sets of controls are provided, one for the pilot and one for the copilot (although the rudder system has only one set of cables). Either set can be used for airplane control. Cockpit control output is transmitted to the booster assemblies through mechanical rods and cables. Ailerons are controlled by turning the control wheels. Elevators are controlled by fore and aft movement of the control columns. The rudder is controlled by pushing the rudder pedals.

Redacted IAW AFI 51-503, paragraph 8.3.

### 1-3 AILERON SYSTEM (27-10-00).

1-3.1 Aileron Control System. Roll motion of the airplane is controlled by two ailerons. The ailerons attach to the outer wing rear beam, forming part of the trailing edge. The left and right ailerons are simultaneously deflected in opposite directions (up and down) to produce roll motion. Each aileron is normally actuated by a hydraulically-powered booster assembly. The booster assembly is controlled by the pilot and copilot control wheels. A flight station torque tube links up the pilot and copilot control wheels. Movement of the control wheels is transmitted through dual cable systems to a common input quadrant assembly mounted on the rear beam of the center wing. Pushrods and links transmit motion from the input quadrant to the booster assembly. The aileron control surfaces are in turn deflected by movement of the booster output lever and aileron pushrods and links. Automatic roll axis control is provided by an autopilot servo connected to the booster input quadrant by a closed loop cable.

Redacted IAW AFI 51-503, paragraph 8.3.

### 1-4 RUDDER SYSTEM (27-20-00).

1-4.1 Rudder Control System. Directional control of the airplane is provided by the rudder. The rudder is hinged to the rear beam of the vertical stabilizer. The rudder is normally actuated by a hydraulically-powered booster assembly. The booster assembly is controlled by the pilot and copilot rudder pedals. A flight station torque tube links up the pilot and copilot rudder pedals. Movement

of the rudder pedals is transmitted through one set of control cables from the flight station torque tube to the booster input arm. Movement of the input arm controls the booster output lever motion through pushrods and links. The rudder control surface is in turn deflected by movement of the booster output lever and rudder pushrod. Automatic yaw axis control is provided by an autopilot servo connected to the booster input quadrant by a closed loop cable.

Redacted IAW AFI 51-503, paragraph 8.3.

## 1-5 ELEVATOR SYSTEM (27-30-00).

1-5.1 Elevator Control System. Pitch attitude of the airplane is controlled by two elevators. The elevators are attached to the rear beam of the horizontal stabilizer to form the trailing edges of the horizontal stabilizer. The elevators are simultaneously deflected up or down to produce a nose-up or nose-down attitude of the airplane. The elevators are actuated by a hydraulically powered booster assembly. The unit is controlled by the pilot and copilot control columns. A flight station torque tube links up the pilot and copilot control columns. Movement of the control columns is transmitted through dual cable systems to the booster input bellcrank. Movement of the input bellcrank controls the booster output lever through pushrods and links. The elevator control surfaces are in turn deflected by movement of the booster output lever, elevator pushrods, crank assembly and torque tubes. Automatic pitch axis control is provided by an autopilot servo connected to the booster input quadrant by a closed loop cable.

Redacted IAW AFI 51-503, paragraph 8.3.

1-5.3 Stall Warning System. The purpose of the stall warning system is to provide adequate pre-stall warning to allow the pilots time to recover from any probable high angle of attack condition without inadvertently stalling the airplane. A wing stalls on the basis of angle of attack (AOA), with due consideration to airplane configuration (flap setting and power setting) and Mach effects. Changes in airplane gross weight, load factor, center of gravity, and elevator deflection do not affect the stall angle of attack. Sensed angle of attack is fully responsive to atmospheric conditions, including steady wind speed, wind shear, and gusts. The MC processes AOA sensor information and initiates special alert stall warnings. The special alert stall warning consists of a voice message on the intercommunication system (ICS) and a visual presentation on the head-up units (HUD) and head-down displays (HDD). The stall warning is available for all flight conditions within the operating envelope including engine out, when indicated airspeed is less than the stall warning speed. Redacted IAW AFI 51-503, paragraph 8.3. A stick pusher control actuator is

**TO 1C-130J-2-27GS-00-1**

used to provide elevator deflection in an attempt to correct an impending stall. The stall warning system is selectable off or on via the avionics management unit (AMU).

**27-00-00**  
1-4 Change 5

*C-130J, T/N 08-3174, 2 October 2015*  
BB-37

4-7.3 Stall Inhibit. When an imminent stall is sensed, the stick pusher actuator provides elevator-down control input to the elevator booster assembly and in turn through the elevator control cables to the control columns. The control-column-down push force is 49 to 71 pounds, depending on elevator position, and may be overridden by the pilot or copilot. The stick pusher actuator receives activation signals from the MC. Before providing stick pusher commands, the MC determines the presence of a stall by processing the following data inputs: AOA vane position, flap position, and thrust. Activation of the stick pusher is preceded by the stall warning.

Redacted IAW AFI 51-503, paragraph 8.3.

**BB10. EXCERPTS FROM TO 1C-130J-2-29GS-00-1, TECHNICAL MANUAL  
GENERAL SYSTEM HYDRAULIC SYSTEMS USAF C-130J SERIES AIRCRAFT**

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**TO 1C-130J-2-29GS-00-1**

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## Section I. HYDRAULIC POWER SYSTEMS

### 1-1 GENERAL

The airplane has three separate and independent hydraulic power systems: the utility hydraulic system, the booster hydraulic system, and the auxiliary hydraulic system. Most components are in service centers in the cargo compartment. Each system provides hydraulic power to other airplane systems. Each system provides input to the mission computer (MC) for the display of status and advisory, caution, and warning system (ACAWS) messages. Figure 1-1 shows the hydraulic systems and airplane systems they supply. Figure FO-1 is a hydraulic schematic diagram of the utility and auxiliary hydraulic power systems. Figure FO-2 is a hydraulic schematic diagram of the booster hydraulic power system.

### 1-2 UTILITY AND BOOSTER HYDRAULIC SYSTEMS (29-10-00).

1-2.1 Utility Hydraulic System. The utility hydraulic system is powered by two variable-volume pumps. The pumps are connected in parallel and are driven by engines No. 1 and No. 2. External ground connections allow a test stand to be connected for ground testing of the hydraulic systems that are normally supplied by the utility hydraulic system. A suction boost pump furnishes an adequate supply of fluid to the suction side of the engine-driven pumps. System pressure is normally limited to 3,000 PSI by the engine-driven pumps. Should this feature on one or both pumps fail, system pressure is limited to approximately 3,450 PSI by a pressure relief valve. Shutoff valves in the supply lines and pressure lines isolate each engine-driven pump when desired. These valves are controlled by switches on the hydraulic control panel or by the appropriate fire emergency handle.

1-2.2 Booster Hydraulic System. The booster hydraulic system is powered by two variable-volume pumps. The pumps are connected in parallel and are driven by engines No. 3 and No. 4. External ground connections allow a test stand to be connected for ground testing of the hydraulic systems that are normally supplied by the booster hydraulic system. A suction boost pump furnishes an adequate supply of fluid to the suction side of the engine-driven pumps. System pressure is normally limited to 3,000 PSI by the engine-driven pumps. Should this feature on one or both pumps fail, system pressure is limited to approximately 3,450 PSI by a pressure relief valve. Shutoff valves in the supply lines and pressure lines isolate each engine-driven pump when desired. These valves are controlled by switches on the hydraulic control panel or by the appropriate fire emergency handle.

Redacted IAW AFI 51-503, paragraph 8.3.

**BB11. EXCERPTS FROM TO 1C-130J-2-45GS-00-1, TECHNICAL MANUAL GENERAL  
SYSTEM DATA TRANSFER AND DIAGNOSTIC SYSTEM USAF C-130J SERIES  
AIRCRAFT**

**TO 1C-130J-2-45GS-00-1**

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**TECHNICAL MANUAL  
GENERAL SYSTEM  
DATA TRANSFER AND  
DIAGNOSTIC SYSTEM  
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**CHANGE 3 - 01 JANUARY 2015**

# CHAPTER 1

## DATA TRANSFER AND DIAGNOSTIC SYSTEM

### 1.1 GENERAL.

Data Transfer and Diagnostic System (DTADS) is the Maintenance Management System (MMS) designed to support on-aircraft diagnostics, software loading functions, and post-flight data retrieval and processing. The DTADS software is a single Computer Software Configuration Item (CSCI) that is partitioned into three elements: the Mission Computer-Aircraft Maintenance Program (MC-AMP), the Personal Computer-Aircraft Maintenance Program (PC-AMP), and the Personal Computer-Ground Maintenance Program (PC-GMP). In addition, DTADS contains a data segment that consists of a collection of configuration data to support on-aircraft and post-flight maintenance processing. A portion of this DTADS software executes within the aircraft mission computers. The remaining portion executes on GFE computers using the Microsoft Windows OS. In addition to providing the interface between the maintainer and the aircraft, DTADS supports the maintainer by providing access to troubleshooting aircraft failures, evaluating status of aircraft systems, loading/downloading of files to/from the aircraft, debriefing recorded flight/maintenance data, providing data viewers, Removable Memory Module (RMM) utilities, and exchanging information with government maintenance systems.

Redacted IAW AFI 51-503, paragraph 8.3.

Redacted IAW AFI 51-503, paragraph 8.3.

**BB12. EXCERPTS FROM TO 1C-130J-2-46GS-00-1, TECHNICAL MANUAL GENERAL  
SYSTEM INTEGRATION AND DISPLAY USAF C-130J SERIES AIRCRAFT**

**TO 1C-130J-2-46GS-00-1**

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**TECHNICAL MANUAL**

**GENERAL SYSTEM**

**SYSTEM INTEGRATION  
AND DISPLAY**

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**CHANGE 17 - 1 JULY 2015**

## Section I. SYSTEM INTEGRATION AND DISPLAY

### 1-1 GENERAL DESCRIPTION.

System integration and display provides central data processing for the digital avionics suite, and allows the crew to selectively access, control, and display a volume of airplane data. The primary components that perform the system integration functions are (figure FO-1):

- Two mission computers (MC)
- Eleven MIL-STD-1553B data buses (1553B data buses)
- Two bus interface units (BIU)
- Ten bus adapter units (BAU)

Integration of avionic systems is achieved through software rather than hardware and several systems exist only as software resident in the MC. The MC controls the information exchange with the avionic systems via 1553B data buses.

The display systems consists of the following:

- One communication/navigation/electronic circuit breaker panel (CNBP)
- Two avionics management units (AMU)
- Four (4) head down displays (HDD).      2      6      Six (6) HDD.
- Two head up displays (HUD)

The display devices, HDD and HUD, generate their own symbology and drive signals based on control signals and data received from the MC. Displayed information is derived from airplane systems, instrumentation, and sensors. The AMU and CNBP display alphanumeric text in the form of menus which are used to control operation of the avionics systems.

Redacted IAW AFI 51-503, paragraph 8.3.

## Section VI. HEAD DOWN DISPLAY

### 6-1 GENERAL DESCRIPTION.

The head down displays (HDD) provide crewmembers with a relatively simple way to access a large amount of information. The system consists of identical color multifunction display units (CMDU), mounted in various locations around the aircraft. A number of data formats may be selected for display on any HDD, using either an AMU or CNI-MU. Data displayed is received from the mission computers via the left and right display MIL-STD-1553B data buses, and transparent asynchronous transmit/receive interface (TAXI) bus (46-21-00).

Redacted IAW AFI 51-503, paragraph 8.3.

### 6-2 HDD COMPONENTS AND OPERATION.

All HDD are identical six inch by eight inch display units, which weigh approximately 20 pounds each. HDD are powered by 28 VDC. HDD 1 through 4 are each powered by a different 28 VDC bus. Each HDD is connected to a mission computer (MC), receiving display and operating instructions via the left or right display 1553B data bus. (See figure 6-1.)

Redacted IAW AFI 51-503, paragraph 8.3.

## Section VII. HEAD UP DISPLAY SYSTEM

### 7-1 GENERAL DESCRIPTION.

The head up display (HUD) system is a dual electronic and optical system that generates symbology and displays information in the pilot and copilot field of view. The displayed information is derived from the airplane instruments and sensors. Display information is provided for takeoff, go-around, in-flight cruise, tactical, approach and landing phases of airplane operation. Airplane flight director guidance is echoed on the display, and additional monitoring is provided to allow the airplane to be operated to category II (CAT II) approach weather minimums. The system operates in either basic mode or visual mode, and allows the crew to select data for display in layers. The pilot and copilot HUD may be operated independent of, and simultaneously with, each other.

### 7-2 HUD SYSTEM COMPONENTS.

(See figure 7-1.) The HUD consists of two independent sub-systems, one each for the pilot and copilot. The system consists of two HUD combiners, two HUD overhead units (OHU), two HUD control panels (HCP), two pilot display unit (PDU) trays, and two HUD electronics units (HEU). The HEU are located one each in the left and center underdeck rack. The HCP are located in the overhead console. The pilot OHU and combiner are mounted to a PDU tray located on the overhead so that the combiner is in the pilot field of view. The copilot OHU and combiner are similarly mounted for the copilot.

Redacted IAW AFI 51-503, paragraph 8.3.

**BB13. EXCERPTS FROM TO 1C-130J-2-70GS-00-1, TECHNICAL MANUAL  
GENERAL SYSTEM POWER PLANT USAF C-130J SERIES AIRCRAFT**

**TO 1C-130J-2-70GS-00-1**

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**TECHNICAL MANUAL**

**GENERAL SYSTEM**

**POWER PLANT**

**USAF**

**C-130J SERIES AIRCRAFT**

Lockheed Martin Aeronautics Company  
F33657-90-C-0071  
FA8625-06-C-6456

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**15 JANUARY 2004**

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## Section I. POWER PLANT

### 1-1 GENERAL

The airplane is powered by four AE 2100D3 turboprop engines. A complete engine consists of a gas turbine power unit connected by a torquemeter shaft and supporting structure to a propeller gearbox (PGB). Each engine, with accessories, and nacelle-mounted components, is installed in a nacelle structure attached to the wing. The primary purpose of the engines is to supply power to the PGBs to operate the propellers. Each PGB drives a hydraulic pump to supply hydraulic power for the hydraulic systems and an electric generator to supply electric power for the electrical systems. The engines supply high pressure bleed air for the airplane bleed air systems. The overall functions and operation of the power plant are described in this section. A more detailed description of each power plant system is given in subsequent sections of this manual.

Redacted IAW AFI 51-503, paragraph 8.3.

**BB14. EXCERPTS FROM TO 1C-130J-6WC-10, WORK CARDS PREFLIGHT/THRUFLIGHT/  
COMBINED PRE/POSTFLIGHT INSPECTION USAF SERIES C-130J AIRCRAFT**

**TO 1C-130J-6WC-10**

**WORK CARDS**

**PREFLIGHT/THRUFLIGHT/POSTFLIGHT/COMBINED PRE/POSTFLIGHT INSPECTION  
USAF SERIES C-130J AIRCRAFT**

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PUBLICATION NUMBER TO 1C-130J6WC-10	INSPECTION REQUIREMENTS INTRODUCTION	FIGURE	CHANGE NO.	CARD NO. I-003
<p>Redacted IAW AFI 51-503, paragraph 8.3.</p> <p>11. THE PREFLIGHT/THRUFLIGHT/POSTFLIGHT AND COMBINED PREFLIGHT/POSTFLIGHT INSPECTIONS CONSIST OF CHECKING THE AIRCRAFT FOR FLIGHT PREPAREDNESS BY PERFORMING VISUAL EXAMINATIONS AND SPECIFIED CHECKS OF STRUCTURAL SYSTEM COMPONENTS TO ENSURE THAT NO DEFECTS OR MALADJUSTMENTS EXIST WHICH COULD CAUSE ACCIDENTS OR ABORTED MISSIONS.</p> <p>12. PREFLIGHT.</p> <p>A. THE PREFLIGHT VALIDITY PERIOD IS 72 HOURS.</p> <p>B. THE PREFLIGHT INSPECTION WILL BE ACCOMPLISHED PRIOR TO THE FIRST FLIGHT OF THE SPECIFIED FLYING PERIOD. REACCOMPLISHMENT OF THE PREFLIGHT INSPECTION IS NOT REQUIRED DURING THE SPECIFIED FLYING PERIOD.</p>				

PUBLICATION NUMBER TO 1C-130J6WC-10	INSPECTION REQUIREMENTS INTRODUCTION	FIGURE	CHANGE NO.	CARD NO. I-004
<p>13. THRUFLIGHT.</p> <p>A. THE THRUFLIGHT INSPECTION WILL BE ACCOMPLISHED BETWEEN FLIGHTS WHEN SCHEDULED GROUND TIME EXCEEDS 6 HOURS, NOT TO EXCEED THE 72-HOUR PREFLIGHT VALIDITY PERIOD</p> <p>14. POSTFLIGHT.</p> <p>A. THE BASIC POSTFLIGHT INSPECTION WILL BE ACCOMPLISHED AFTER THE LAST FLIGHT OF THE SPECIFIED FLYING PERIOD.</p> <p>15. COMBINED PREFLIGHT/POSTFLIGHT.</p> <p>A. THE COMBINED PREFLIGHT/POSTFLIGHT INSPECTION MAY BE ACCOMPLISHED AFTER THE LAST FLIGHT OF THE FLYING PERIOD IN PLACE OF THE BASIC POSTFLIGHT INSPECTION. ACCOMPLISHMENT OF THIS INSPECTION ALSO COMPLIES WITH THE PREFLIGHT INSPECTION REQUIREMENT.</p> <p style="text-align: right;">Redacted IAW AFI 51-503, paragraph 8.3.</p>				

**BB15. EXCERPTS FROM TO 1C-130J-6WC-14, WORK CARDS A/B/C1/C2 CHECK INSPECTION USAF SERIES C-130J AIRCRAFT**

**TO 1C-130J-6WC-14**

**WORK CARDS**

**A/B/C1/C2 CHECK INSPECTION  
USAF SERIES C-130J AIRCRAFT**

Lockheed Martin Aeronautics Company  
F33657-90-C-0071  
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<b>CURRENT SUPPLEMENTS</b>
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1C-130J-6WC-14S-6

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PUBLICATION NUMBER TO 1C-130J-6WC-14	INSPECTION REQUIREMENTS INTRODUCTION	FIGURE	CHANGE NO.	CARD NO.																								
			1	I-002																								
<p>6. THE LETTER CHECKS ARE PROGRESSIVE INSPECTION REQUIREMENTS THAT BUILD UP TO MORE EXTENSIVE INSPECTIONS. THE A CHECK IS ACCOMPLISHED IN CONJUNCTION WITH THE B, C1, AND C2 CHECKS. THE B CHECK IS ACCOMPLISHED IN CONJUNCTION WITH THE C1 AND C2 CHECKS AND THE C1 CHECK IS ACCOMPLISHED IN CONJUNCTION WITH THE C2 CHECK. THE INSPECTION TASKS FOR EACH CHECK ARE IDENTIFIED BY AN "X" FOR THE APPROPRIATE INSPECTION TYPE IN EACH COLUMN. FOR EXAMPLE, ALL INSPECTIONS REQUIRED TO BE PERFORMED FOR AN A CHECK WILL HAVE AN "X" BESIDE THE TASK IN THE "A" COLUMN; ALL THE INSPECTIONS REQUIRED FOR THE B CHECK WILL HAVE AN "X" BESIDE THE TASK IN THE "B" COLUMN, AND SO FORTH. THE EXCEPTION IS WHEN A LOWER INTERVAL TASK IS SUPERSEDED BY A TASK IN A GREATER INTERVAL. FOR EXAMPLE, AN A CHECK INSPECTION TASK WILL ONLY APPLY DURING THE A CHECK WHEN A DIFFERENT TASK IN THE B CHECK IS A MORE INTENSE INSPECTION THAT COVERS THE LESS INTENSIVE INSPECTION. ONLY THE B CHECK INSPECTION WILL BE ACCOMPLISHED. IN THIS SITUATION THE TASKS WILL BE MARKED ACCORDINGLY. THE INTERVALS FOR A COMPLETE INSPECTION CYCLE ARE SHOWN BELOW:</p> <table border="1"> <thead> <tr> <th colspan="6">INSPECTION INTERVALS</th> </tr> <tr> <th>A CHECK</th> <th>B CHECK</th> <th>A CHECK</th> <th>C1 CHECK</th> <th>B CHECK</th> <th>C2 CHECK</th> </tr> </thead> <tbody> <tr> <td>270 DAYS</td> <td>540 DAYS</td> <td>810 DAYS</td> <td>1,080 DAYS</td> <td>1,350 DAYS</td> <td>1,890 DAYS</td> </tr> <tr> <td>1,200 FLT HRS MAXIMUM FROM PREVIOUS C2</td> <td>1,200 FLT HRS MAXIMUM FROM PREVIOUS B</td> <td>1,200 FLT HRS MAXIMUM FROM PREVIOUS C1</td> <td>1,200 FLT HRS MAXIMUM FROM PREVIOUS B</td> <td>1,200 FLT HRS MAXIMUM FROM PREVIOUS C1</td> <td>1,200 FLT HRS MAXIMUM FROM PREVIOUS B</td> </tr> </tbody> </table>					INSPECTION INTERVALS						A CHECK	B CHECK	A CHECK	C1 CHECK	B CHECK	C2 CHECK	270 DAYS	540 DAYS	810 DAYS	1,080 DAYS	1,350 DAYS	1,890 DAYS	1,200 FLT HRS MAXIMUM FROM PREVIOUS C2	1,200 FLT HRS MAXIMUM FROM PREVIOUS B	1,200 FLT HRS MAXIMUM FROM PREVIOUS C1	1,200 FLT HRS MAXIMUM FROM PREVIOUS B	1,200 FLT HRS MAXIMUM FROM PREVIOUS C1	1,200 FLT HRS MAXIMUM FROM PREVIOUS B
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<p>7. THE A/B/C1/C2 LETTER CHECKS ARE CONSOLIDATED INTO ONE DECK. THE INSPECTION TASKS FOR EACH CHECK ARE IDENTIFIED BY AN "X" FOR THE APPROPRIATE INSPECTION TYPE IN EACH COLUMN. FOR EXAMPLE, ALL INSPECTIONS REQUIRED TO BE PERFORMED FOR AN "A CHECK" WILL HAVE AN "X" BESIDE THE TASK IN THE "A" COLUMN AND ALL THE INSPECTIONS REQUIRED FOR THE "B CHECK" HAVE AN "X" BESIDE THE TASK IN THE "B" COLUMN, AND SO FORTH.</p>																												

**BB16. RELEASE OF EXCERPTS FROM TO 1C-130J-6WC-14, TO 1C-130J-6WC-10,  
TO 1C-130J-2-27GS-00-1, TO 1C-130J-2-29GS-00-1, TO 1C-130J-2-45GS-00-1, TO  
1C-130J-2-46GS-00-1, TO 1C-130J-2-70GS-00-1**

**From:**  
**To:** AIB/LA  
**Subject:** C-130J Manual Excerpts  
**Date:** Wednesday, December 16, 2015 9:14:32 AM  
**Attachments:** [1 C-130J-2-27GS-00-1 stall warning.pdf](#)  
[1C-130J-2-27GS-00-1 Flt Ctrl Stick Pusher marked redaction.pdf](#)  
[1C-130J-2-29GS-00-1 page 1-1 Hydro Desc - marked redactions.pdf](#)  
[1C-130J-2-45GS-00-1 DTADS gen descr marked redactions.pdf](#)  
[1C-130J-2-46GS-00-1 Sys Int and disp general desc marked redactions.pdf](#)  
[1C-130J-2-46GS-00-1 Sys Int and disp HDD marked redactions.pdf](#)  
[1C-130J-2-46GS-00-1 Sys Int and disp HUD marked redactions.pdf](#)  
[1C-130J-2-70GS-00-1 pg 1-1 Eng Desc - marked redactions.pdf](#)  
[1C-130J-6WC-10 PR work card marked redaction.pdf](#)  
[1C-130J-6WC-10 TH and BPO work card marked redaction.pdf](#)  
[1C-130J-6WC-14 ABC Check insp descr work card.pdf](#)

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AIB/LA -

Attached are the TO excerpts that the AIB has requested to include in the AIB publicly releasable report.

The attached excerpts were redacted by the USAF. LM authorizes release of the USAF-redacted versions in the AIB report - with *one additional redaction* in the first attached file entitled "1C-130J-2-27GS-00-1 stall warning.pdf". The one additional redaction is based on such language being LM proprietary information, which is not authorized for release. The additional redaction LM has made to the file "1C-130J-2-27GS-00-1 stall warning.pdf" is the redacting (by blocking out) of the words and figures

To be clear, this LM authorization is based on the redacted versions provided by the USAF (plus the one additional LM redaction described above, and attached above in the first file). LM reviewed the unredacted sections in the attached files, and, in our opinion, found no export controlled information.

Associate General Counsel  
Lockheed Martin Aeronautics Company

# BB17. EXCERPT FROM AFI 90-802, RISK MANAGEMENT

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 90-802

11 FEBRUARY 2013

*Special Management*

**RISK MANAGEMENT**



## COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at [www.e-Publishing.af.mil](http://www.e-Publishing.af.mil) for downloading or ordering.

**RELEASABILITY:** There are no releasability restrictions on this publication.

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OPR: AFSEC/SEA

Certified by: AF/SE  
(Major General Gregory A. Feest)

Supersedes: AFI90-901, 1 April 2000

Pages: 31

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This Air Force Instruction (AFI) implements the Risk Management (RM) guidance within Air Force Policy Directive (AFPD) 90-8, *Environment, Safety, and Occupational Health Management and Risk Management*. This AFI provides an overarching framework for Air Force RM (AF RM) and establishes the requirement to integrate and sustain RM throughout the AF as a risk reduction process to assist leaders in identifying and controlling safety and health hazards in making informed decisions. It assigns responsibilities for AF RM Process elements and contains AF RM Process management information for the Safety and Occupational Health program. Via formal memorandum dated 12 May 2010, the Assistant Secretary of the Air Force, Installations, Environment and Logistics (SAF/IE), delegated authority to the AF Chief of Safety (AF/SE) for DODI 6055.1, *DoD Safety and Occupational Health Program*, Enclosure E3.2 guidance as related to the AF RM Process. HQ AF (HAF) staffs, Major Commands (MAJCOMs), Direct Reporting Units (DRUs), Field Operating Agencies (FOAs), Numbered AFs (NAFs) and Component Numbered AFs (CNAFs) are responsible for establishing and sustaining AF RM according to the process elements described in this AFI. This publication applies to all Air Force units, agencies and personnel (military and civilian), to include Air Force Reserve Command (AFRC), and Air National Guard (ANG).

Although interrelated, this publication does not address AF RM guidelines, policies, and procedures specifically tied to Acquisition and Sustainment Life Cycle Management, Anti-terrorism, Integrated Defense RM Process (IDRMP), Installation Emergency Management (EM) RM. AF RM concerns related to Integrated Life Cycle Management (ILCM) guidelines, policies, and procedures for the development, review, approval, or management of systems, subsystems, end-items and services are addressed in AFI 63-101, *Acquisition and Sustainment Life Cycle Management*, and related publications. All AF RM issues related to acquisition and test efforts are addressed in AFI 63-101 and will be coordinated with the Assistant Secretary of the Air

Force for Acquisition (SAF/AQ). AF RM concerns related to Anti-terrorism reside in AFI 10-245 (AF/A7S). IDRMP is addressed in AFI 31-101 (AF/A7S), Integrated Defense. AF RM concerns related to the Installation Emergency Management Program reside in AFI 10-2501 (AF/A7C). Additionally, this AFI does not address the risk assessment applied to the Annual Planning and Programming Guidance, the Air Force Requirements Oversight Council, and similar strategic-level applications developed by AF/A9, with the process stakeholders, which link to the Chairman of the Joint Chief of Staff (CJCS) Integrated Risk Matrix and the Air Force’s related Risk Criteria. Per Department of Defense Instruction (DoDI) 6055.1, this AFI excludes explosive safety covered under Department of Defense (DoD) 6055.9-STD, *DoD Ammunition and Explosive Safety Standards*, fire prevention and protection covered under DoD Instruction 6055.6, *DoD Fire and Emergency Services (F&ES) Program*, and AFI 32-2001, *Fire Emergency Services Program*. Specific questions on any of the above topic areas should be directed to the appropriate subject matter experts and agencies as appropriate.

This AFI may be supplemented at any level, but all supplements must be routed to AF/SE, [afse.workflow@pentagon.af.mil](mailto:afse.workflow@pentagon.af.mil) for coordination prior to certification and approval. Refer recommended changes and questions about this publication to the Office of Primary Responsibility (OPR) (DSN: 246-1562/0675) using the AF Form 847, *Recommendation for Change of Publication*; route AF Form 847s from the field through Major Command (MAJCOM) publications/forms managers. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at <https://www.my.af.mil/afirms/afirms/afirms/rims.cfm>.

**SUMMARY OF CHANGES**

This document has been substantially revised and must be completely reviewed. All references to the term “Operational RM” (ORM) have been removed and replaced with the term “Risk Management” (RM) to emphasize the importance of hazard and risk mitigation and management in all aspects of the AF, not just **Operations**. In addition, all references to the term “Program” have been replaced with the term “Process” to support the premise that RM is a systemic process and tool to enhance risk mitigation practices in order to prevent the accidental loss of personnel, facilities, weapon systems, and equipment during peacetime and wartime, rather than simply a program to be managed. Several revisions were made to standardize the AF RM Process with sister service RM processes, terms and applications. Primary changes include: 1) The 6-Step AF RM Process was modified to a 5-Step RM Process; 2) The RM principles were modified; 3) The levels of RM were reduced to “Deliberate” and “Real-Time”; 4) Paragraph 9 and subsections were added on Real-Time RM (RTRM) and "ABCD" mnemonic. Section B outlines specific waiver procedures and better defines all agency responsibilities for the AF RM Process. Section C outlines the AF RM Core Concepts and Processes. Section D better defines RM training requirements.

Section A—AF RM Overview	3
1.    RM Definition and Tenets: .....	3

2.	RM Goals: .....	4
3.	RM Foundations: .....	4
Section B—AF RM Process Management		5
4.	Responsibilities: .....	5
5.	Waivers to this AFI: .....	11
Section C—AF RM Core Concepts and Processes		12
6.	RM Principles: .....	12
7.	RM Levels: .....	13
Figure 1.	Relationship of RM Levels. ....	13
8.	5-Step RM Process: .....	14
Figure 2.	5-Step RM Process. ....	15
Figure 3.	Sample Risk Assessment Matrix. ....	16
9.	Real-Time RM (RTRM) Process or ABCD Model: .....	19
Figure 4.	The 5-Step RM Process as related to the RTRM / ABCD Model. ....	20
Section D—AF RM Training		22
10.	Training Resources: .....	22
11.	Training Requirements: .....	23
12.	Training Documentation: .....	25
<b>Attachment 1—GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION</b>		<b>26</b>
<b>Attachment 2—WAIVER REQUEST FORMAT</b>		<b>31</b>

### *Section A—AF RM Overview*

#### **1. RM Definition and Tenets:**

1.1. **RM Definition.** RM is a decision-making process to systematically evaluate possible courses of action, identify risks and benefits, and determine the best course of action (COA) for any given situation. RM enables commanders, functional managers, supervisors, and individuals to maximize capabilities while limiting risks through application of a simple, systematic process appropriate for all personnel and functions in both on- and off-duty situations. Appropriate use of RM increases an organization's and individual's ability to safely and effectively accomplish their mission/activity while preserving lives and precious resources.

#### **1.2. RM Tenets:**

- 1.2.1. Risk is inherent in all missions, operations and activities, both on- and off-duty.
- 1.2.2. Risk can be effectively mitigated if understood and appropriate action is taken.

1.2.3. All personnel are responsible for utilizing RM concepts, tools and techniques.

1.2.4. The RM process outlined herein applies to risk-related decisions when such decisions are not governed via separately established requirements/guidelines (i.e., statutes, regulations, or DoD/AF policy/guidance that address personnel health and safety or environmental matters and dictate particular decisions or outcomes within these requirements/guidelines).

## **2. RM Goals:**

2.1. Enhance mission effectiveness at all levels, while preserving assets and safeguarding health and welfare.

2.2. Create an Air Force cultural mindset in which every leader, Airman, and employee is trained and motivated to manage risk in all their on- and off-duty activities.

2.3. Integrate RM into mission and activity planning processes, ensuring decisions are based upon risk assessments of the operation/activity.

2.4. Identify opportunities to increase AF warfighting effectiveness in all environments, and ensure success at minimal cost of resources. The RM Process shall be institutionalized and be an inherent part of all military operations to address safety, occupational and environmental health risks.

## **3. RM Foundations:**

3.1. Essential concepts of AF RM:

3.1.1. RM is a comprehensive system for improving individual and organizational performance in all functional areas, operations and activities, both on- and off-duty.

3.1.2. RM must be tailored to meet the unique mission needs and operational requirements of each organization and personnel within the organization.

3.1.3. RM provides the process and tools to develop and enhance awareness and understanding of at-risk activities and behavior of personnel both on- and off-duty. These processes and tools help create effective risk assessments that identify potential hazards and effective strategies to mitigate or eliminate the hazards.

3.1.4. Effective RM has the added advantage of not only identifying risks, but also identifying areas where regulatory guidance or standard operating procedures may be overly restrictive or inconsistent with mission/activity requirements. In this event, a comprehensive risk assessment may be used to support solicitation of waivers, variances, or changes, but will not in itself constitute authority to violate or deviate from any directive, policy, standard, or other applicable regulatory guidance.

3.2. RM does not:

3.2.1. Inhibit flexibility, initiative or accountability in any chosen course of action.

3.2.2. Remove risk altogether or support a “Zero Defect” mindset. RM provides decision makers with the tools and strategies necessary to make the appropriate decision for a given set of circumstances.

3.2.3. Take the place of training, practice, drills, rehearsals, tactics, techniques and procedures associated with a specific event and/or action.

3.2.4. Override or supersede compliance with federally mandated Department of Defense (DoD), OSHA standards, federal environmental cleanup standards, AF standards/criteria, or any risk-based statutory and regulatory requirements that apply and dictate the outcome of such requirements. The AF does not have authority to grant exemptions and waivers for statutory and regulatory requirements that have risk related exposure elements or standards. All other waivers, variances, or change requests must be properly vetted through appropriate agencies for approval. In addition, the RM does not sanction or justify violations of any law.

### ***Section B—AF RM Process Management***

**4. Responsibilities:** The following responsibilities reinforce or are additive to those defined in the RM section of AFPD 90-8:

4.1. The Assistant Secretary for Air Force Installations, Environment and Logistics (SAF/IE):

4.1.1. IAW Headquarters AF Mission Directive (HAFMD) 1-18, *Assistant Secretary of the Air Force (Installations, Environment and Logistics)*, has authority over the AF RM Process as outlined in DoD Instruction (DODI) 6055.1, *DoD Safety and Occupational Health (SOH) Program*. This responsibility may be re-delegated IAW HAFMD 1-18, paragraph 4, as necessary to meet the intent of DODI 6055.1.

4.1.2. Ultimately determines how the RM Process and associated elements outlined herein apply to the AF functional areas within SAF/IE authority under AF Mission Directive (HAFMD) 1-18.

4.2. The Air Force Chief of Safety (AF/SE) will:

4.2.1. Serve as the lead agent for the overall cross-functional integration and sustainment effort of AF RM processes and procedures (not associated with Acquisition and Sustainment ILCM) into the HQ US Air Force (HAF) staff and all subordinate AF MAJCOMs, units and agencies.

4.2.2. Designate an overall AF RM Process Manager within the AF Safety Center (AFSEC) who will:

4.2.2.1. Be trained IAW Section D of this publication.

4.2.2.2. Incorporate advancements and innovations in RM into the AF RM Process as warranted.

4.2.2.3. Work with all subordinate RM Process Managers (MAJCOM, DRU, FOA, NAF and CNAF) to develop and provide policy, plans, tools, techniques and processes that support and ensure AF RM integration and sustainment within all functional areas.

4.2.2.4. Chair the AF RM Working Group as outlined in paragraph 4.4.

5.1. Affected organizations shall process a waiver request when it is impractical or impossible to meet the requirements or procedures outlined in this AFI for any reason. Waivers are temporary and will be granted for periods not to exceed 12 months. Exemptions (permanent relief from requirements or procedures) to this AFI will not be granted.

5.1.1. Waivers will be coordinated through Major Command (MAJCOM) RM process managers to MAJCOM vice commanders (MAJCOM/CVs), who will either disapprove/return to unit, or recommend approval/forward to the AF/SE for final approval, unless otherwise specified within this AFI.

5.1.2. Waiver authority may be re-delegated as necessary to meet the intent of this AFI. Any re-delegation of this authority shall not be effective unless in writing.

5.1.3. Waiver requests will be formatted IAW the guidance in Attachment 2. A consolidated waiver request may be submitted for multiple units/agencies when the requested waiver action is identical for these units/agencies.

5.2. Approved waivers: The AF RM Process Manager, MAJCOM RM Process Manager and affected organization(s) will maintain a master file of approved waiver requests as long as they are in effect and for one year thereafter.

5.3. Waiver renewals: Affected organizations will submit a brief justification for waivers requiring renewal. Waiver renewals will not exceed 12 months.

### ***Section C—AF RM Core Concepts and Processes***

**6. RM Principles:** Four principles govern all actions associated with RM. These principles are the cornerstone of effective RM and are applicable 24-hours a day, 7-days a week, 365-days a year (24-7-365) by all personnel, for all on- and off-duty operations, tasks and activities.

6.1. **Accept no unnecessary risk.** Unnecessary risk comes without a commensurate return in terms of real benefits or available opportunities; it will not contribute meaningfully to mission or activity accomplishment and needlessly jeopardizes personnel or other assets. All AF missions and daily routines involve risk. The most logical choices for accomplishing a mission are those that meet all mission requirements while exposing personnel and resources to the lowest acceptable risk; take only those risks that are necessary to accomplish the mission or task. However, we cannot and should not be completely risk averse; even high risk endeavors may be undertaken when there is a well founded basis to believe that the sum of the benefits exceeds the sum of the costs. Balancing benefits and costs is a subjective process and tied intimately with the factors affecting the mission or activity; therefore, personnel with prior knowledge and experience of the mission or activity must be engaged whenever possible in making risk decisions to ensure a proper balance is achieved.

6.2. **Make risk decisions at the appropriate level.** Although anyone can make a risk decision that impacts their personal well being, some risk acceptance decisions must be made by an appropriate decision making authority that can effectively allocate resources and implement controls to mitigate or eliminate risks associated with an operation/activity. Making risk decisions at the appropriate level also establishes clear accountability. Leaders and individuals must be aware of how much risk they can accept and when to elevate RM decisions to a higher level. Those accountable for the success or failure of the mission or activity must be fully engaged in the risk decision process.

**6.3. Integrate RM into operations, activities and planning at all levels.** Integrate RM into planning at all levels and as early as possible. This provides the greatest opportunity to make well informed risk decisions and implement effective risk controls. To effectively apply RM, commanders, supervisors, and personnel must dedicate time and resources to integrate RM principles into planning, operational processes and day-to-day activities. Risk assessments of operations and activities are most successful when they are accomplished in the normal sequence of events (the pre-planning of a mission or activity) by individuals directly involved in the event, and not as a last minute or add-on process. Any amount of pre-planning that can be accomplished, even in a time constrained environment, is better than no planning at all.

**6.4. Apply the process cyclically and continuously.** RM is a continuous process applied across the full spectrum of military training and operations, base operations functions, and day-to-day activities and events both on- and off-duty. It is a cyclic process that is used to continuously identify and assess hazards, develop and implement controls, evaluate outcomes and provide feedback to our Airmen to save lives and preserve combat resources.

**7. RM Levels:** The principles, goals and fundamental concepts of RM highlight the universal application of RM concepts both on- and off-duty. There are two primary levels of RM (Deliberate, & Real-Time) that dictate the level of effort and scope that should normally be undertaken when evaluating risk(s). **Figure 1** depicts the basic relationship of these levels and how they relate across the strategic (long-term) and tactical (short-term) spectrums. The controls/resources and issues shown below the RM levels are examples of resources and impacts that might apply across the planning and execution timelines. As the diagram shows, Deliberate and Real-Time RM are interrelated when making RM decisions; they are separated only at the point where the planning phase transitions to the execution phase of the mission/activity. A strong, effective RM process involves careful and Deliberative planning coupled with effective, Real-Time RM. This full spectrum approach ensures comprehensive risk mitigation and the likelihood of mission/activity success.

**Figure 1. Relationship of RM Levels.**



**7.1. Deliberate:** Deliberate RM refers to pre-mission/activity planning and normally involves the full formal application of the complete 5-Step RM Process outlined in paragraph 8. This process can range from an in-depth planning process involving thorough hazard

# BB18. EXCERPTS FROM TO 1C-130J-1, USAF SERIES C-130J AIRCRAFT

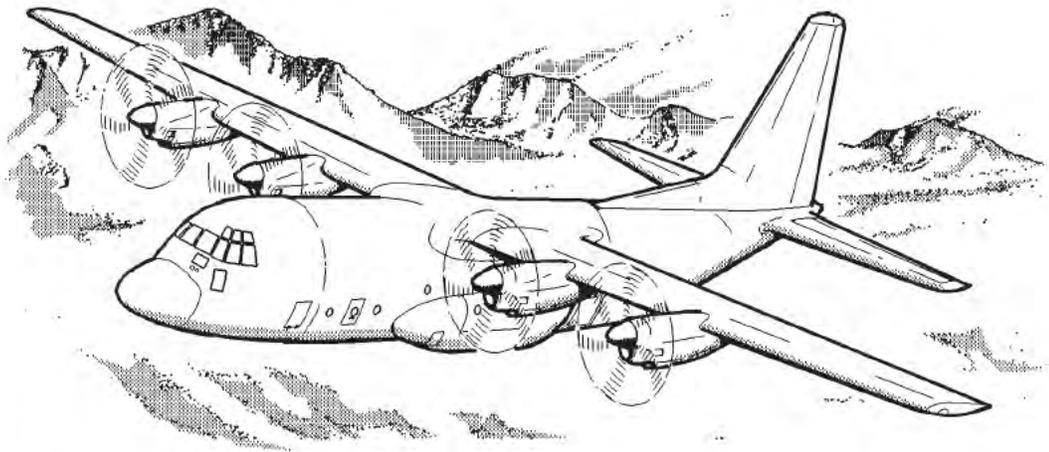
<b>CURRENT SUPPLEMENTS</b>
1C-130J-1S-151

## Flight Manual

## TO 1C-130J-1

### USAF SERIES C-130J AIRCRAFT

THIS PUBLICATION IS  
INCOMPLETE WITHOUT  
TO 1C-130J-1-1 OR  
TO 1C-130(C)J-1-1  
AND TO 1C-130J-1-4  
OR PTO 1C-130J-1-5  
F33657-90-C-0071  
FA8625-06-C-6456



BASIC AND ALL UPDATES HAVE BEEN MERGED TO MAKE THIS A COMPLETE PUBLICATION

This publication incorporates Operational Supplement TO 1C-130J-1S-158 dated 28 April 2014 and Safety Supplement to 1C-130J-1SS-159 dated 1 May 2014



PUBLISHED UNDER AUTHORITY OF THE SECRETARY OF THE AIR FORCE

**1 JULY 2011**

**CHANGE 7 - 1 JANUARY 2015**

**TO 1C-130J-1**

**ENGINE RUNNING ONLOAD/OFFLOAD (ERO).**

Use this checklist for all ERO operations except combat offload. This checklist is designed to take a crew from landing through an ERO, and a subsequent takeoff. If accomplishing an ERO after engine start, use this checklist after the Before Taxi checklist. If accomplishing an ERO before parking, begin this checklist after landing. Complete the After Landing checklist before shutting down any engines. Initiate the following flow upon reaching a safe taxi speed.

PILOT FLOW	COPILOT FLOW
Exterior lights	Flaps APU Pressurization Landing lights <input type="checkbox"/> DEFENSIVE SYSTEMS MASTER EXT PWR/APU switch

**CHECKLIST.**

- |  |    |             |
|--|----|-------------|
| 1. Crew briefing   | P  | “Complete”  |
| a. Exits   |    |             |
| b. Load (equipment/personnel)                                  |    |             |
| c. Airplane configuration (brakes, engines, propellers, flaps) |    |             |
| d. Crew coordination   |    |             |
| 2. APU   | CP | RUN, APU    |
| a. APU control switch - START, RUN                             |    |             |
| b. EXT PWR/APU switch - APU                                    |    |             |
| <input type="checkbox"/> 3. DEFENSIVE SYSTEMS MASTER switch    | CP | “Standby”   |
| 4. Flaps   | CP | “Set, ____” |

**WARNING**

Ensure airplane is fully depressurized by opening a cockpit window before opening the crew entrance door. Failure to do so may result in airplane damage and/or personal injury.

- |   |   |                               |
|---|---|-------------------------------|
| 5. Doors  | P | “Clear to open”               |
| a. Cockpit window - Open  |   |                               |
| 6. Offload/Onload clearance   | P | “Clear to offload/<br>onload” |
| a. Parking brake - Set  |   |                               |
| b. Brakes - Normal/EMER   |   |                               |
| c. <input type="checkbox"/> 6.6 Engines - GND IDLE/LSGI (one engine at HSGI if LAIRCM required) |   |                               |

**2A-76**

## d. Propellers - Hotel mode (as required)

**NOTE**

When enplaning/deplaning crewmembers, stop the checklist at step 6. When the new crewmembers have assumed their positions, resume the checklist at step 7.

7. Taxi clearance	LM	“Ready for taxi”
a. Propellers - Normal		
8. Departure setup	CP, P	“Complete”
a. Radios and NAVAIDS		
b. AMU		
(1) NAV SELECT		
(2) GCAS		
c. REF/MODE panel		
9. CNI-MU	CP, P	“Checked”
a. COMM/NAV radios		
b. IFF/TCAS		
c. ROUTE		
d. PERF INIT		
e. TOLD		
f. MC INDEX		
(1) V speeds		
(2) WT & BAL		
10. Departure briefing	PF	“Complete”
11. Brakes	CP	“Normal”
12. LSGI switches	CP	“Normal”
13. APU	CP	OFF, STOP
a. EXT PWR/APU switch - OFF		
b. APU control switch - STOP		
14. Flaps	CP	“50 percent”
15. Trim tabs	CP	“Set”
<input type="checkbox"/> 16. DEFENSIVE SYSTEMS MASTER switch	CP	“Operate”
17. ERO checks	LM, CP	“Complete”



---

**ENGINE RUNNING ONLOAD/OFFLOAD (ERO).**

The ERO checklist is used for all ERO operations except combat offloads. This checklist takes the airplane from the runway after landing, through completion of engine running onload/offload operations, and reconfiguring the airplane for takeoff.

**Change 4**

**2C-35**

**TO 1C-130J-1**

**WARNING**

An ERO will not be conducted simultaneously through the crew entrance door and any other airplane door.

- |                             |   |                               |
|-----------------------------|---|-------------------------------|
| 1. Doors                    | P | “Clear to open”               |
| 2. Offload/Onload clearance | P | “Clear to offload/<br>onload” |

**NOTE**

Refer to TO 1C-130J-9CL-1 for loading/  
offloading.

**NOTE**

When enplaning/deplaning crewmembers, the checklist may be stopped at step 3. When the new crewmembers have assumed their positions, they will resume the checklist at step 2.

- |                   |  |          |
|-------------------|--|----------|
| 3. Offload/Onload |  | Complete |
|-------------------|--|----------|

**CAUTION**

Ensure the crew entrance door is closed and that the ramp is at or above the horizontal position prior to taxi.

- |                   |    |                  |
|-------------------|----|------------------|
| 4. Taxi clearance | LM | “Ready for taxi” |
|-------------------|----|------------------|

**NOTE**

Ensure the RAMP/DOOR switch is returned to the “OFF” position after door indicates closed.

- |                    |        |                        |
|--------------------|--------|------------------------|
| 5. Doors           |        | Closed                 |
| 6. Troops          |        | Briefed                |
| 7. Cabin and cargo |        | Secured                |
| 8. CNI-MU PAYLOAD  |        | Adjusted (if required) |
| 9. Seat belts      |        | Fastened               |
| 10. ERO checks     | LM, CP | “Complete ”            |

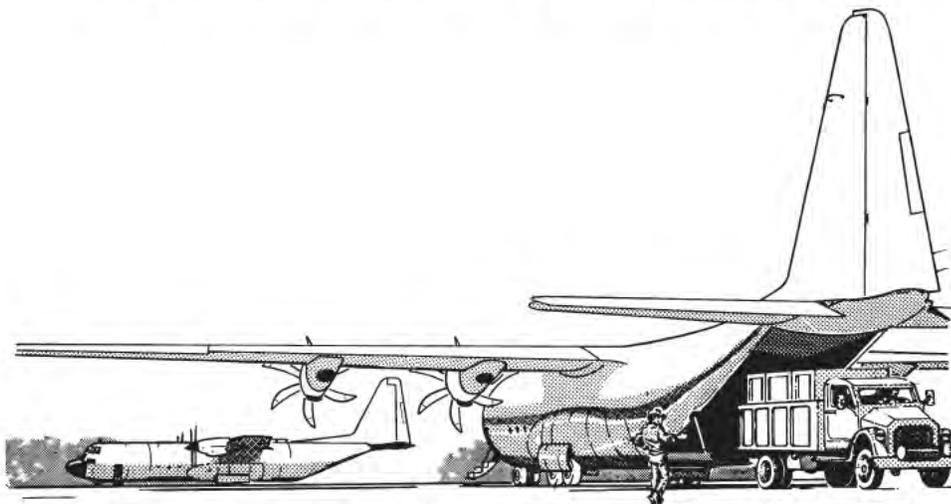
**2C-36 Change 4**

**BB19. EXCERPTS FROM TO 1C-130J-9, TECHNICAL MANUAL CARGO  
LOADING MANUAL ALL USAF SERIES C-130J AIRCRAFT**

**TO 1C-130J-9**

**TECHNICAL MANUAL**

**CARGO LOADING MANUAL  
ALL USAF SERIES C-130J AIRCRAFT**



F33657-90-C-0071  
FA8625-06-C-6456

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**CHANGE 6 - 1 JANUARY 2015**

degrees of free movement in a vertical plane that intersects the pallet edge at a right angle. The tiedown ring capacity is 7,500 pounds. Pallet dimensions are 108 inches by 88 inches by 2.25 inches and weight is 290 pounds. The pallet permits maximum loads of 10,000 pounds. Loads must be positioned symmetrically so that the center of gravity of each load falls within 12 inches of the lateral centerline and 14 inches of the longitudinal centerline of the pallet. If a load is concentrated on one side of the pallet, an equal weight must be placed on the opposite side to permit the common center of gravity of both loads to fall within the 24-by 28-inch rectangle in the pallet center. Shoring may be used to increase bearing surface and, thereby, reduce wheel pressure. Shoring affects only loads positioned on the pallet surface and provides a loadspreading effect as defined in this section. (The pallet itself shall never be considered or used as shoring. Construction within the pallet does not permit load spread.) Caution must be exercised for steel-wheeled vehicles. Due to the thin ribbon-line contact longitudinally, it is recommended that protective shoring be used for steel-wheeled loads. The maximum contact area of a single bare steel wheel on the pallet will not normally exceed one square inch and direct application may damage the pallet in flight. When palletizing concentrated cargo loads, ensure that the aircraft structural limits as outlined in Figure 2-4 are not exceeded. For example, wheeled loads positioned on the pallet must not exceed the roller load limit on the cargo floor. Concentrated loads should be staggered/positioned on the pallet to permit maximum utilization of the pallet within aircraft structural limits.

4-86. On  aircraft, eight HCU-6/E pallets can be accommodated. Six pallets, each capable of carrying up to 10,000 pounds of bulk cargo can be positioned in pallet positions one through six. Pallet position seven is limited to 8,500 pounds. The eighth pallet is positioned on the ramp and is limited to a maximum weight of 5,000 pounds including the weight of the cargo, pallet, nets, and any other equipment on the ramp (total ramp load).

4-87. On  aircraft, six HCU-6/E pallets can be accommodated. Four pallets, each capable of carrying up to 10,000 pounds of bulk cargo can be positioned in pallet positions one through four. Pallet position five is limited to 8,500 pounds. The sixth pallet is positioned on the ramp and is limited to a maximum weight of 5,000 pounds including the weight of the cargo, pallet, nets, and any other equipment on the ramp (total ramp load).

#### NOTE

All pallet heights will be measured from the top surface of the pallet.

#### 4-83. GENERAL PALLETIZED CARGO LOADING PROCEDURES.

4-84. MISCELLANEOUS SMALL CARGO AND TROOP BAGGAGE. (See Figure 4-20.) When possible, secure small items of cargo on HCU-6/E pallets before loading them into the aircraft. The use of pallets permits the cargo to be preloaded, resulting in quicker unloading/offloading. In the case of troop movement, preloading of personnel baggage on a pallet permits all troops to enter the aircraft over the ramp, and then the baggage pallet can be placed on the ramp as the last item aboard.

4-85. HCU-6/E PALLET. This pallet is constructed of a corrosion-resistant aluminum surface with a balsa wood core. A lip forming the pallet perimeter provides 22 tiedown rings for securing cargo nets. The tiedown rings are capable of 240

- a. The maximum height of cargo on pallets positioned on the cargo ramp shall not exceed 77 inches.
- b. The maximum height of cargo on pallets connected in train shall not exceed 100 inches, except as provided for in step e.
- c. The maximum single pallet weight for cargo secured with nets and stacked to 96 inches shall not exceed 10,000 pounds, with a vertical center of gravity not to exceed 48 inches.
- d. The maximum single pallet weight for cargo secured with nets and stacked above 96 inches (not to exceed 100 inches) shall not exceed 8,000 pounds.
- e. The height limitations for oversized single items of palletized cargo (i.e., aircraft fuselage assemblies, containers, and special equipment, etc.) is 103 inches above the surface of the pallet. To ensure proper understanding, oversized cargo is that palletized cargo larger than the normal dimensions (84 by 104 by 96 inches) of a single HCU-6/E pallet. Single items of oversized cargo can also be defined as large individual pieces of cargo that are secured together to form one unitized single piece of cargo (i.e., helicopter blades, fuel tip tank, etc.). Unitized cargo is multiple items of cargo with the same physical characteristics that are secured together to form a single unit. The 103-inch height limitation will provide a minimum amount of clearance between the aircraft structure and the cargo; therefore, extra care shall be taken during on/offloading to prevent any contact between the cargo and aircraft structure. Oversized cargo positioned on pallets shall have the support base for the cargo physically on the pallet, and structural limits of the aircraft roller conveyors shall not be exceeded. All cargo stacked or positioned on the pallet shall be positioned so that it does not require restraint for stability in the static condition.
- f. The maximum cargo weight for a two or three pallet train secured with nets and stacked to 96 inches shall not exceed 26,000 pounds.
- g. The maximum cargo weight for a two or three pallet train secured with nets stacked above 96 inches (not to exceed 100 inches) shall not exceed 21,000 pounds.

4-88. Use a pair of HCU-7/E cargo nets around the sides of the pallet and a HCU-15/C top net across the top to secure the load to the pallet. When

properly secured, these three nets provide all necessary restraint for palletized loads up to 10,000 pounds. These three nets weigh 65 pounds. Procedures to be used in attaching 463L pallets (as described in paragraph 4-86 and 4-87) are as follows:

- a. With side net (HCU-7/E) piece, beginning at any corner, fasten net attaching hooks to pallet D-rings around the pallet periphery to corner diagonally opposite from the beginning corner. Using another side net piece, continue fastening net attaching hooks to tiedown rings around the pallet to the beginning corner.
- b. Fasten net side pieces together using fastening devices at each end of net side pieces.
- c. Throw top net (HCU-15/C) over cargo load and fasten to side net pieces using fastening devices provided on top and side nets.

**WARNING**

Fastening devices (hooks) will not be connected to the net webbing or the bottom row of side net rings for applied restraint. When low profile cargo does not permit proper connection (hook to ring) of top net to side nets as outlined above, netted cargo will be secured in accordance with procedures in this Section.

- d. Lock all fastening devices securely.

4-89. When low-profile cargo is loaded on a HCU-6/E pallet that does not permit the use of side nets, the top net may be used for restraint in all directions (vertical, lateral, forward, and aft) provided the following conditions are met:

- a. Supplemental straps (CGU-1/B) or chains will be used to provide forward, lateral, and aft restraint if the net weight of the pallet exceeds 2,500 pounds.

**CAUTION**

Straps and chains will never be intermixed. They will never be laced or woven through the net in such a manner to prevent the tie leading off in a straight line in the direction of pull.

- b. Bottom belly band is positioned to prevent small cargo from sliding out from under the net.
- c. The height of the cargo does not exceed 45 inches from the surface of the pallet.

- d. All top net hooks are fastened to the pallet tiedown rings.

4-90. Side nets may be used for restraint without the top net, provided that the side nets are pulled tight and secured by tiedown straps. The straps will be connected to the highest level of side rings on or near the top of the cargo. A minimum of seven straps, four longitudinal and three lateral, shall be used.

4-91. When palletizing oversized or heavyweight items of cargo on HCU-6/E pallet(s) to increase onloading/offloading efficiency, the 10,000-pound single pallet load limitation may be increased. When the side and top nets are not used and restraint is provided by using aircraft tiedown rings, pallet tiedown rings, and/or restraint rail tiedown rings, the maximum pallet load limiting factor may become the aircraft roller conveyor system.

4-92. PRECAUTIONS FOR PALLETIZED LOADS. Observe the following precautions when loading palletized cargo:

**WARNING**

Pallets/nets with missing tiedown rings, exposed deteriorated balsa core, and extreme delamination, or nets with missing D-rings, hooks, or damaged/missing webbing shall not be loaded prior to maintenance in order to maintain the required structural integrity.

**WARNING**

The 54-inch by 88-inch pallets will not be loaded side by side in the 108-inch cargo handling system rail configuration unless properly restrained.

**WARNING**

Exercise extreme care when manipulating lock and holddown functions from the Lock Control page on the MFCD with pallets/platforms aboard the aircraft. Failure to ensure correct locks and holddowns or proper lock functions (i.e., LOCK or UNLOCK) are selected could result in an inadvertent release of pallets/platforms causing damage to the aircraft, serious injury to or death of personnel.

**CAUTION**

Excessively warped pallets will not be loaded in the cargo handling system.

**CAUTION**

The restraint rail detents will not be used as a pallet stop.

- a. Before loading, all pallets will be thoroughly cleaned of all mud, dirt, and oil.
- b. Dense cargo and crated/boxed cargo shall be loaded on the pallet first. Crushable cargo and light-density cargo shall be stacked on top of the load. Small wheeled items or skidded cargo should be restrained separately to the pallet in addition to the use of the net. All cargo should be stacked within the vertical stacking lines of the pallet boundaries.
- c. The primary method of loading HCU-6/E pallets will be accomplished using the standard 463L container loading equipment (K-loaders), or a similar item of equipment having an adjustable bed capability.
- d. A secondary method of loading HCU-6/E pallets may be accomplished, using 463L forklifts equipped with rollerized tines or in conjunction with rollerized slave dollies.

**WARNING**

Only forklifts rated at a lifting capacity equal to or greater than pallet weight to be onloaded/offloaded shall be used.

**WARNING**

Ensure all personnel are briefed to remain clear of the area directly in the path or area the forklift will be maneuvered in. Normally, loads will not be pulled to affect movement. When required, use extreme caution.

**NOTE**

Direct forklift loading/offloading of 463L pallets (bare tine operations) shall only be employed when the equipment listed for use in c., and d. above, are not available. Tines shall be a minimum of 72 inches in length.

- e. Restraint for cargo that is oversized to a single pallet or cargo placed on two or more pallets shall be accomplished by using chains, straps, and chain gates/bridles attached as necessary to the pallet tiedown rings, restraint rail rings, or the cargo floor tiedown rings. The chain bridle, when used, will be rigged in accordance with Figure 4-18 and Figure 4-19.

**CAUTION**

If a requirement exists to winch a pallet(s) into or out of the aircraft, at least two attaching points must be used for chain or cable, preferably the tiedown rings on each corner of the pallet. Under no condition should a single point of pull be used.

**CAUTION**

Do not use external snatch blocks with the aircraft cargo winch to winch cargo into or out of the aircraft.

**CAUTION**

Stacking empty pallets upside down may damage the pallet surface or rings.

- f. Empty 463L pallets may be stacked for air-lift up to a maximum of 20 pallets excluding the base support pallet. The first pallet will be separated from the base support pallet by three longitudinal rows of lumber (minimum 3 inches thick by 4 inches wide, commercial grade) placed equal distances apart, or by placing four wooden warehouse skids of equal thickness to cover the entire surface of the base pallet. Additional separation may be used as required to facilitate pallet buildup or forklift operations. Pallet stacks will normally be secured with side and top nets. Side nets only may be used for stacks of 6 to 20 pallets, provided side nets and tiedown straps are used in accordance with paragraph 4-90. After empty pallets have been restrained, additional cargo may be placed on top and secured separately. **EXCEPTION:** Nets for the empty pallets may be placed under the top nets/straps used to secure the empty pallets. Side nets must be cinched up as tightly as possible to prevent snagging on the restraint rails in the aircraft. The nets as described will be the only required restraint for stacks of empty pallets.
- g. Empty pallets in stacks of five or less, plus base pallet, may be transported with only chains and devices for restraint. When this method is employed, chains will be attached by threading them through two rings (one each corner of each pallet). An MB-1 device

is attached to the free end of each chain and hooked to a similar device leading from a diagonal corner. When the four required chains and devices have been secured, a figure X will have been formed across the top of the pallet.

**4-93. RESTRAINT CRITERIA.**

4-94. Aircraft cargo is subjected to extreme forces caused by rough air, rough landings, crashes, and extreme flight attitudes. These forces, which act more strongly in certain directions, will shift cargo unless it is secured firmly to the aircraft. Because the aircraft and cargo move forward rapidly during normal operation, the cargo will tend to keep moving forward rapidly if the aircraft is suddenly slowed. This tendency to continue forward is the strongest force likely to be generated by the cargo. Other forces that may develop are: an aft force, which tends to move the cargo toward the rear of the aircraft; a lateral (side-to-side) force, which tends to shift cargo away from the aircraft center-line; and a vertical force, which tends to raise the cargo or to press it against the cargo floor.

4-95. All cargo in the aircraft shall be restrained so it will not shift during any flight condition normally experienced by the aircraft. Forces caused by various flight conditions tend to move the cargo in a forward, aft, side, or vertical direction or in combinations of these directions. These forces are directly proportional to the cargo's weight. The ratio between the cargo's weight and the maximum force that will act in each direction is called the load factor.

4-96. Diversified cargo, including vehicles, shall be restrained for loads in all directions by types of tiedown devices best adapted to the type of cargo to be restrained.

4-97. Tiedown devices shall be installed to provide adequate restraint without overstressing the tiedown fittings or damaging the cargo. Tension loads in tiedown devices shall be checked to avoid overstressing tiedown devices and tiedown fittings.

4-98. Restraint criteria for aircraft cargo are based upon the weight of each cargo unit and the dynamic forces imposed upon each unit due to a change in motion (changing direction, slowing down, or speeding up). The dynamic forces increase as the rate of change in motion increases. An object that is slowed down over a large distance has lower dynamic forces than the same object traveling at the same velocity when stopped in a short distance. These dynamic forces may be simulated by increasing the static loads (the unit weights multiplied by a constant) to equal the dynamic loads. The constant used in this case is the load factor (the ratio

between the weight of an object and the force action on the object in each direction).

4-99. **CARGO RESTRAINT LOAD FACTORS.** Cargo must be restrained so it will not shift due to loads resulting from dynamic forces encountered during flight and landing. The restraint must be adequate for the greatest load that may result. These loads are expressed in terms of cargo weight times the applicable load factor. If a cargo unit is subjected to a load equal to 1.5 times its weight, it must be restrained for a load factor of 1.5 to prevent it from shifting.

4-100. Counter forces applied to the cargo to prevent movement are identified by the direction in which the cargo would move if it were unrestrained. Forward restraint keeps the cargo from moving forward, aft restraint prevents the cargo from moving rearward, lateral restraint prevents side-to-side movement, and vertical restraint prevents the cargo from rising off the cargo floor.

4-101. **MINIMUM RESTRAINT FORCE.** The minimum restraints used to prevent cargo movement in any direction are called restraint criteria. Expressed in units of the force of gravity, or load factor, minimum restraint criteria are as follows:

- a. Forward - 3.0 G
- b. Aft - 1.5 G
- c. Lateral- 1.5 G
- d. Vertical - See Figure 4-21

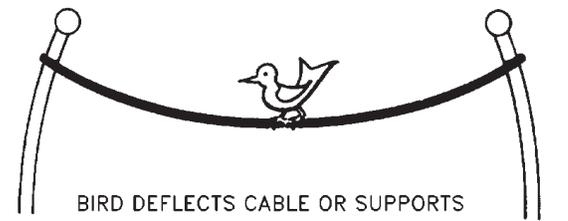
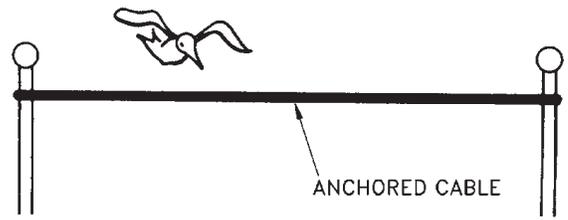
4-102. Loads prepared on platforms for aerial delivery will normally be attached to the platform and exceed the restraint forces required for the aircraft.

4-103. **FUNDAMENTAL PRINCIPLES OF CARGO RESTRAINT.** Certain fundamental principles must be observed when tying down cargo. Although the details of tying down each unit of cargo vary with its bulk, weight, configuration, and position in the aircraft, these fundamental principles of restraint are always applicable. If the fundamental principles are observed, satisfactory restraint of cargo movement can be achieved. (See Figure 4-22.)

4-104. Cargo must be tied down in such a manner that the load will be prevented from moving. In the case of stacked boxes, it is important that the stack be prevented from collapsing. Inadvertent shifting

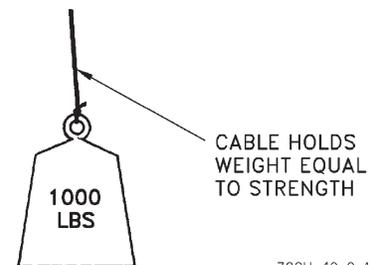
of a single box within the load would loosen all the tiedowns.

4-105. A fundamental principle of developing sufficient strength of tiedown is that the strap, chain, or cable must lead-off in the general direction of the load to be restrained. This important point may be illustrated as follows:



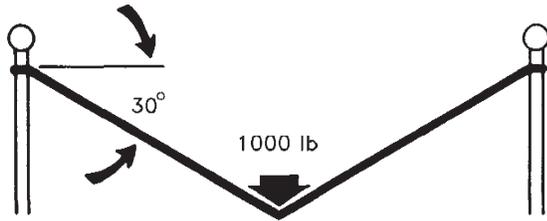
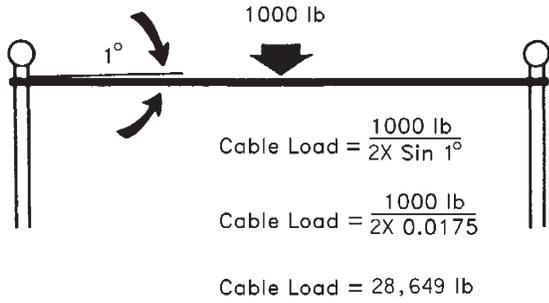
382U-40-0-125-01

In this illustration a very light load applied at 90 degrees to the direction of the cable will deflect it. However, if the weight is applied in the direction of the cable, the cable will support a weight equal to its strength.



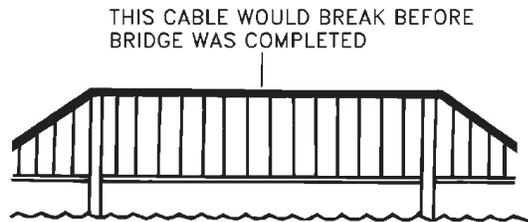
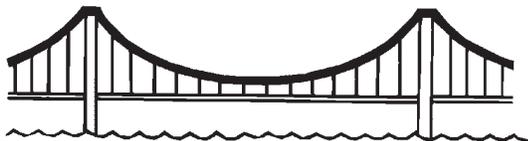
382U-40-0-125-02

As shown above, by the bird on the wire, a small load applied vertically to a stretched cable will induce a large load lengthwise in the cable. Shown below are calculations illustrating the magnitude of the loads in a stretched cable and a slack cable.



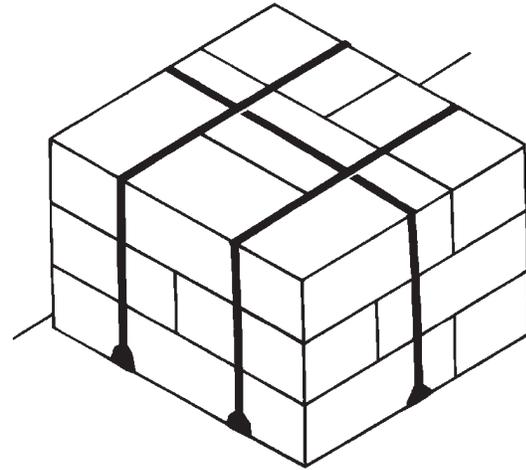
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Hence, the closer the tiedown can lie in the direction of the load the better the tiedown. Suspension bridges apply the same principle.



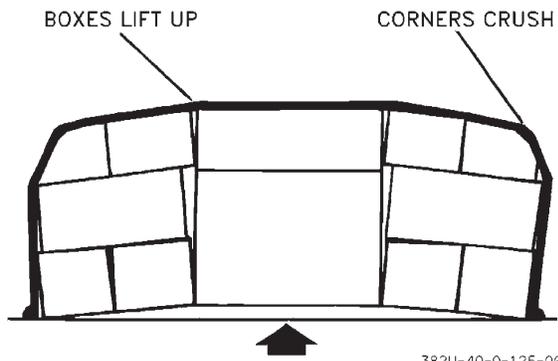
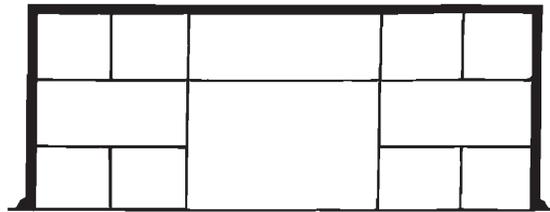
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In tying down cargo, the following type of tiedown is satisfactory for upward restraint, but not for side-ward or forward restraint.



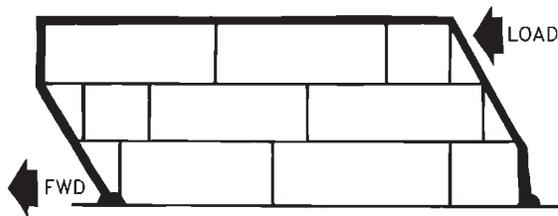
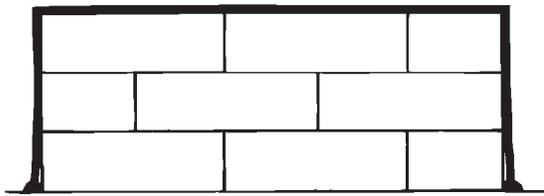
382U-40-0-125-05

However, if the tiedowns are too long across the top of the load, a severe upward force will permit the cargo to move as shown.



382U-40-0-125-06

Hence, the length of ties across the top of a load should be kept short. For forward or aft restraint, the type of tiedown below will not prevent the cargo shifting except for the friction forces introduced.

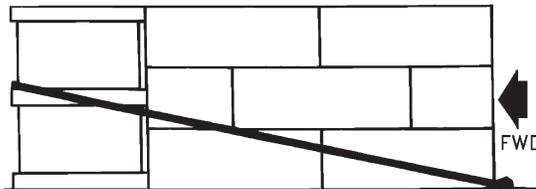


382U-40-0-125-07

4-106. Neglecting friction, the tiedown cannot begin to restrain the load until it has shifted so that the tiedowns begin to go in the same direction as the force. The correct method of tying down such a load for forward movement is as follows:

**NOTE**

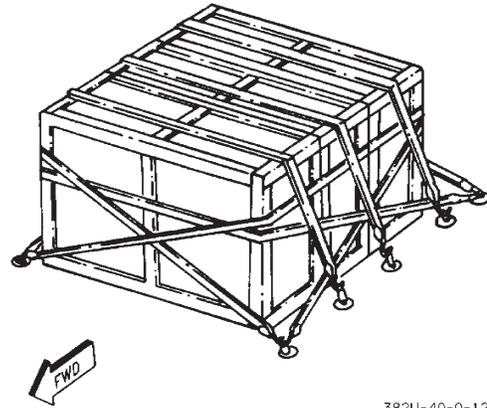
When a tiedown strap or chain is placed around a cargo unit and the tiedown attachment points are to two symmetrical tiedown fittings, the value of the strap or chain is doubled provided the capacity of the fittings is equal to or greater than the capacity of the strap or chain.



382U-40-0-125-08

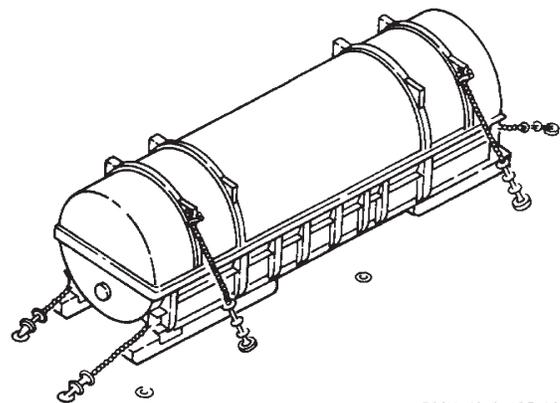
4-107. Ties made solely for one load direction cannot be expected to restrain cargo against a load applied simultaneously from another direction. This applies to tiedowns that are passed around or over the top of the cargo and not directly attached to it.

Cargo properly restrained for all load directions is as shown.



382U-40-0-125-09

4-108. When a tiedown device is attached directly to a cargo unit and not merely passed over or around it, restraint can be applied for more than one load direction, depending on the strength of the device and the angle of pulloff from the tiedown fitting. By varying the angle of attachment, a tiedown device can be attached to the cargo so that restraint is available simultaneously in three directions. An example of such a tiedown is illustrated.

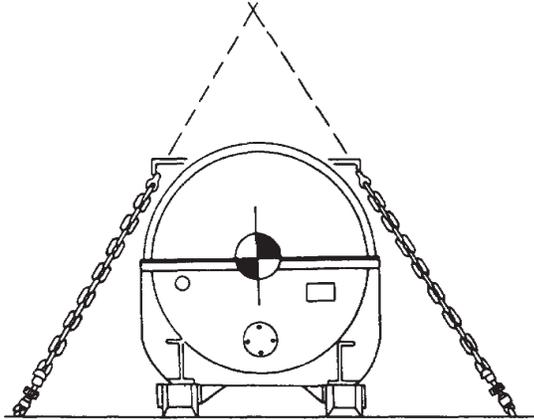


382U-40-0-125-10

4-109. The point of attachment of a tiedown device to a cargo unit must be substantial enough to withstand the loads for which the cargo unit is being restrained. A tiedown device must not be attached to any convenient protrusion on a cargo unit without due consideration of the protrusion's strength.

4-110. When tiedown devices are attached to cargo, the lines of action of the tiedown devices should, if possible, intersect above the cargo center

of gravity as shown. Such a tiedown reduces the tendency of cargo to overturn when subjected to combined upward and side loads.



382U-40-0-125-11

4-111. When boxes are stacked, the strongest should be at the bottom. Otherwise they may crush weaker boxes beneath them, causing one or more of the boxes in the stack to shift, loosening the tiedowns and permitting the stack to collapse.

4-112. If cylindrical cargo units have protrusions, palletize or shore to distribute the load.

4-113. Asymmetrical tiedowns permit load distribution that may ultimately result in tiedown device failure. This failure would result from the different load-deflection rates of dissimilar materials or of identical materials of different length. Any material subjected to a tension load will stretch a given percentage of its length. Therefore, the greater the length, the greater the potential amount of stretch. If two tiedown devices of the same type and capacity are used to restrain a load in a given direction and one tie is longer than the other, the longer tie, with its greater stretch potential, will permit the shorter tie to assume the majority of any load that may develop. If, as a result, the shorter tie should be overstressed and fail, the longer tie would be subjected to the full load and it too would probably fail.

4-114. Although all materials stretch in direct proportion to the applied load, different materials have different rates of stretch. Nylon devices stretch more readily than steel and, under tension, almost immediately permit the steel device to assume the majority of the load. Therefore, when two or more tiedown devices are required to restrain a unit of cargo for a given load direction, the devices must be of same type and the ties must be of approximately the same length.

4-115. DETERMINING TYPE AND QUANTITY OF TIEDOWN DEVICES REQUIRED. Determination of the types and quantities of tiedown devices to be used in restraining cargo should be based on the following considerations:

- a. Appropriate strength rating to afford adequate restraint with the minimum number of devices.
- b. Like types and lengths of tiedown devices should be used for a given direction of restraint.
- c. Units of general cargo may be grouped and effectively restrained by cargo nets. Concentrated cargo units within such a grouping must rest on the cargo floor and be individually restrained by appropriate tiedown devices.
- d. Tiedowns should be attached in a symmetrical pattern by using corresponding fittings on each side of the cargo floor centerline.
- e. Tiedown devices must be securely attached to the cargo and all slack removed so that any tendency toward motion is immediately restrained.
- f. A symmetrical tiedown arrangement must be used whenever possible.
- g. Use nylon tiedown devices on crates, boxes, and other large units that might crush easily.
- h. Do not use nylon devices over sharp edges.
- i. Use steel tiedown devices on heavy objects that have attachment lugs or a hard surface for chains to go around.

4-116. EFFECT OF APPLYING RESTRAINT AT ANGLES. Every tiedown device is rated to withstand a force exerted parallel to the tiedown device as shown in view 1 of Figure 4-22. When one end of a device is secured to a fitting on the cargo floor, the longitudinal force will not be exerted parallel to the length of the device unless the device is attached to the cargo as shown in view 2. If so attached, all the rated strength will be available to prevent cargo from moving in the direction of the longitudinal arrow.

4-117. Because it is seldom practical to fasten a tiedown device as illustrated in views 1 and 2, tiedowns are usually attached at some point above the cargo floor as shown in view 3. When so attached, only part of the device is available to prevent cargo longitudinal movement. Vertical restraint is provided, but no lateral restraint is provided. A compromise position as shown in view 4

generally provides restraint simultaneously in three directions: forward, vertical, and lateral. Aft restraint is obtained by attaching tiedowns symmetrically in pairs to the front of the cargo.

#### 4-118. GENERAL RULES FOR APPLYING TIEDOWNS. (See Figure 4-23.)

#### WARNING

Cargo that is loaded and tied down to the ramp while the ramp is open shall be rechecked for security and tautness of the tiedown after the ramp is closed.

#### CAUTION

Tiedowns placed on cargo, positioned on the ramp, and secured to the main floor, and tiedowns placed on cargo, positioned on the main floor, and secured to the ramp will be removed before opening the ramp.

The following general conditions should be met when restraining a load:

- a. Always compute the number of tiedown chains required. Apply aft restraint (tiedowns 1, 2, 5, and 6) in the opposite direction but at the same angle as forward restraint (tiedowns 3, 4, 7, and 8). Use the same attachment point (points A, B, C, or D) on the cargo for attaching a forward and an aft restraint chain if possible.
- b. Always attach an even number of tiedowns (4 chains, or 6 chains, or 8 chains, etc.) in pairs (1 and 2, 3 and 4, 5 and 6, 7 and 8) for forward or for aft restraint. The tiedown chains should be attached in a symmetrical pattern by connecting to opposite fittings (A opposite B, C opposite D, E opposite F) across the cargo floor centerline.
- c. If the center of gravity is remote from the geometric center of the load as in Figure 4-23, add an additional tiedown (tiedowns 9 and 10) on each side of the load so the center of gravity is between a pair of tiedowns.
- d. Spring-mounted vehicles must be secured using points on the frame of the vehicles. Use sufficient devices to restrain the total weight of the vehicle. Do not attach more than half the total number of tiedowns required in any given direction to the axles of vehicles. Figure 4-24 shows some vehicle

attachment points and methods of attaching tiedown chains.

#### CAUTION

Inspect the back side of axles and structures for the presence of hydraulic lines and/or electrical cables. Tiedown chains must be routed to prevent damage to the hydraulic lines and/or electrical cables.

- e. Nylon tiedown devices may be used to secure lightweight vehicles.
- f. Certain vehicles are so constructed that each major component part must be tied down. Examples are truck-mounted cranes, K-loaders, forklifts, etc. When component parts are mounted to the chassis by kingpins and hydraulic actuators, restraint shall be applied to both the frame and the lifting carriage.
- g. Dolly mounted engines must be secured using points on the engine adapter only. (See Figure 4-25).

#### 4-119. CALCULATING TIEDOWN DEVICES REQUIRED. (See Figure 4-22.)

#### 4-120. CARGO UNLOADING/OFFLOADING (CARGO HANDLING SYSTEM).

4-121. GENERAL. Before loading the aircraft, the following procedures must be accomplished, whether the cargo is to be airdropped or airlifted to a terminal point.

- a. Perform an operational checkout of the cargo handling system.

#### NOTE

When loading double or triple pallet loads, maintain a distance of 2 inches between the individual pallets.

- b. Perform cargo load planning to satisfy center of gravity and load limits as specified in this section.

4-122. LOADING CARGO PALLETS/PLATFORMS. Load cargo pallets/platforms as follows:

#### NOTE

If a right-hand or left-hand detent latch fails to engage the pallet/platform indent, a fore and aft movement of the pallet/platform may be necessary to engage the detent.

## BB20. RELEASE OF EXCERPTS FROM TO 1C-130J-1 AND TO 1C-130J-9

**From:**  
**To:** AIB/LA  
**Subject:** USAF AIB - C-130J Flight Manual Excerpts  
**Date:** Tuesday, January 5, 2016 2:19:36 PM  
**Attachments:** [1C-130J-1 ERO Checklists redacted Redacted.pdf](#)  
[1c-130j-9 pages redacted Redacted.pdf](#)  
[1C-130J-2-27GS-00-1 \(stick pusher\) Redacted.pdf](#)  
[1C-130J-2-27GS-00-1 \(general, aileron\) marked redactions Redacted.pdf](#)  
[1C-130J-2-27GS-00-1 \(rudder elevator\) Redacted.pdf](#)

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AIB/LA -

Attached are the flight manual excerpts that the AIB requested to include in the AIB publicly releasable report.

The AIB identified areas to be redacted by the USAF with red blocks. LM redacted the same red-blocked areas by deleting the red-blocked areas and replacing them with the word "redacted". LM authorizes release of the as redacted versions in the AIB report, without additional redactions.

To be clear, this LM authorization is based on the redacted versions provided by the USAF (with red-blocked areas that LM replaced by deleting the areas and replacing them with the word "redacted"). Thank you.

Associate General Counsel

Lockheed Martin Aeronautics Company

# BB21. EXCERPTS FROM AFI 21-101, AIRCRAFT AND EQUIPMENT MAINTENANCE MANAGEMENT

**BY ORDER OF THE  
SECRETARY OF THE AIR FORCE**

**AIR FORCE INSTRUCTION 21-101**

**21 MAY 2015**

**Maintenance**



**AIRCRAFT AND EQUIPMENT  
MAINTENANCE MANAGEMENT**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at [www.e-publishing.af.mil](http://www.e-publishing.af.mil).

**RELEASABILITY:** There are no releasability restrictions on this publication.

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OPR: AF/A4LM

Certified by: AF/A4L (Mr )

Pages: 315

Supersedes: AFI21-101, 26 July 2010

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This publication implements Air Force Policy Directive (AFPD) 21-1, *Maintenance of Military Materiel*; and is consistent with AFPD 13-5, *Air Force Nuclear Enterprise*. It is the basic Air Force instruction (AFI) for all weapon system and support equipment maintenance management guidance. It provides the minimum essential guidance and procedures to safely and effectively maintain, service, and repair weapon systems and support equipment. It applies to all Major Commands (MAJCOMs), including Air Force Reserve Command (AFRC), and the Air National Guard (ANG), along with their subordinates. Supplements and addendums must be written in accordance with (IAW) AFI 33-360, *Publication and Forms Management*. Supplements must identify required deviations (applicability, variance, and/or differences in organizational placement of responsibilities/processes) on the supplement with the abbreviation “(DEV)” directly preceding the affected paragraph number. Only supplements and addendums containing deviations must be submitted to AF/A4L for approval. The authorities to waive wing/unit level requirements in this publication are identified with a tier (“T-0, T-1, T-2, T-3”) number following the compliance statement. See AFI 33-360, Table 1.1 for a description of the authorities associated with the tier numbers. Submit requests for waivers through the chain of command to the appropriate tier waiver approval authority IAW AFI 33-360. For questions on interpreting this instruction, first contact your MAJCOM maintenance functional activity. Refer recommended changes and questions about this publication through your MAJCOM, to the Office of Primary Responsibility (OPR) using the AF Form 847, *Recommendation for Change of Publication*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records Disposition Schedule (RDS) located in the Air Force Records Information Management System (AFRIMS). The use of the name or mark of any

15.3.2.4.1. Uncorrected discrepancies will be briefed weekly at the daily production/scheduling meeting and forwarded to the appropriate maintenance supervision for corrective action. **(T-2)**.

15.3.2.5. When out of configuration items or missing serially-tracked items are discovered, establish a single DD for the “out-of-configuration” condition. **(T-2)**.

15.3.2.5.1. Additionally, add a MIS WCE for each WUC/LCN and part/serial number item requiring verification to the single DD. **(T-2)**.

15.3.3. TCTO Management. TCTOs are AF, MAJCOM/Lead Command or Numbered Air Force (NAF) directed modifications and inspections that provide units with instructions for doing a one-time change, modification, or inspection of equipment, (includes applicable Federal Aviation Administration (FAA) Air Worthiness Directives, original equipment manufacturer service bulletins and service instructions, after concurrence by Lead Command). Lead Command, NAF and local inspections are considered OTIs. Use the MIS to process Lead Command and NAF OTIs or modifications in the same manner as TCTOs with compliance periods, remove from service dates and rescission dates IAW TO 00-5-15. TCTOs, with the exception of immediate and urgent action, are considered scheduled maintenance and integrated into maintenance planning cycles. Consider concurrent accomplishment of TCTO work with other unscheduled or scheduled maintenance (e.g., PH, ISO, HSC, HPO). Manage TCTOs using the MIS, TO 00-5-15 and specific MAJCOM instructions.

15.3.3.1. PS&D is responsible for managing all assigned weapon system TCTO programs and will monitor/provide oversight of all aircraft, weapon system, AGE and commodity TCTOs to ensure all compliance requirements are met. **(T-1)**.

15.3.3.1.1. Munitions-related TCTOs will be managed by the munitions scheduler (if assigned) and engine-related TCTOs will be managed by EM schedulers. **(T-1)**.

15.3.3.1.2. PMEL TCTOs will be managed by the owning agency with PS&D oversight. **(T-1)**.

15.3.3.1.3. The parent technical training center manages and schedules all TCTOs for training equipment assigned to a training detachment or Mobile Training Team (MTT).

15.3.3.2. PS&D will review MIS products weekly to ensure proper documentation and management by owning and managing TCTO agencies. **(T-1)**.

15.3.3.2.1. When an error is detected, PS&D will inform affected work centers and provide assistance to correct the discrepancy IAW TO 00-20-2. **(T-1)**.

15.3.3.2.2. Units will complete an annual TCTO status review. **(T-1)**.

15.3.3.2.2.1. Units will reconcile rescinded TCTOs using a REMIS Master TCTO report or equivalent annually (NLT 30 Sep) and before deleting/retiring TCTO records from the appropriate MIS. **(T-1)**.

15.3.3.2.2.2. If REMIS or equivalent access is not available, request a REMIS Master TCTO report or equivalent from the MAJCOM MDS WST/SPO identified in the subject TCTO. If TCTO status conflicts are identified, units will contact

1).

15.4.1.3.13.2. Shipment transactions with the “as of” date and time the engine(s) physically leave the base. **(T-1)**.

15.4.1.3.13.2.1. Once engine is received at gaining unit, ensure trailer and adapter are transferred in MIS. **(T-1)**.

15.4.1.3.13.3. All engine and tracked item removals, installations, and engine status changes. **(T-1)**.

15.4.1.3.13.4. All engine status transaction removals, installations, gains, Engine-Not-Mission Capable for Supply (ENMCS), work completed, test cell rejects, work stopped, work started, change in level of maintenance, awaiting disposition, intra-AF receipt and intra-AF shipments, transfer, and HOW MAL codes IAW AFI 20-115 and TO 00-25-254-series. **(T-1)**.

15.4.1.3.14. Verify all update transactions (e.g., times, TCTO, part removal and installations) are input before reporting an engine removal or installation. **(T-2)**.

## **15.5. Maintenance and FHP Planning Cycle.**

15.5.1. Responsibilities. MAJCOMs will develop procedures to ensure the intent of the maintenance and FHP planning cycle is met. The objective of the planning cycle is to execute the wing FHP consistent with operational requirements and maintenance capabilities. The maintenance and FHP planning cycle begins with the annual allocation of flying hours. Maintenance and operations schedulers propose an annual flying plan that balances both operational requirements and maintenance capabilities. Units should commit the fewest number of aircraft possible to meet programmed UTE rate standards and goals.

15.5.1.1. If applicable, MAJCOMs will develop scheduling procedures for units involved in Operational Test and Evaluation, Developmental Test and Evaluation, or Initial Operational Test and Evaluation to ensure the intent of the maintenance and FHP planning cycle is met. **(T-2)**.

15.5.1.2. AMC units tasked by the 618th Air and Space Operations Center (AOC) will adhere to Commander, Air Force Forces (COMAFFOR) Apportionment and Allocation Process (CAAP) policies and procedures. **(T-1)**.

15.5.1.3. The annual plan, detailed by month, will evaluate the capability of maintenance to support the annual FHP. **(T-1)**.

15.5.1.4. When developing the annual plan, units will utilize the MDS specific MxCAP2 model, if available. **(T-1)**.

15.5.1.5. Maintenance Plans and Schedules. PS&D builds, coordinates, publishes and distributes an integrated aircraft/system annual and quarterly plan & monthly and weekly schedule to support maintenance and operational requirements.

15.5.1.5.1. Plans will be developed, coordinated and consolidated jointly by the Operations OSS's Current Operations Flight Scheduling, and PS&D. **(T-1)**.

**BB22. EXCERPTS FROM TO 00-5-15, TECHNICAL MANUAL AIR FORCE  
TIME COMPLIANCE TECHNICAL ORDER PROCESS**

**TO 00-5-15**

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**TECHNICAL MANUAL**

**AIR FORCE  
TIME COMPLIANCE TECHNICAL ORDER  
PROCESS**

This manual supersedes TO 00-5-15, dated 15 May 2014.

DISTRIBUTION STATEMENT A - Approved for public release; distribution is unlimited. Headquarters (HQ) AFMC/PA Certificate Number AFMC 04-320. Submit recommended changes or problems with this Technical Order to Operating Location (OL) Robins AFLCMC/EZGTP, Robins AFB, GA 31098. Questions concerning technical content shall be referred to AFMC/A4UE.

Published Under Authority of the Secretary of the Air Force

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**22 SEPTEMBER 2014**

## FOREWORD

### 1 PURPOSE.

Time Compliance Technical Orders (TCTO) provide instructions to modify military systems or commodities within specified time limits, initiate special “one time” inspections to impose temporary restrictions and track support system and equipment configuration on systems or equipment. TCTOs for fielded systems and equipment are planned, prepared and issued by the responsible Equipment Specialist/Technical Content Manager (ES/TCM) (or Modification Manager) under the authority of the affected system/equipment Program Manager/Supply Chain Manager (PM/SCM). The Technical Order (TO) Manager is responsible for assisting an ES/TCM or Modification Manager with the development and publication of TCTOs and related TO Updates.

**1.1 Changes.** This publication is a major revision of the TCTO process. The intent of this revision is to provide updated information achieved through Technical Content Manager (TCM) generated changes, changes from the TO 00-5-15 TCTO Working Group comprised of Equipment Specialists (ES), and Technical Order Management recommended changes received from technicians at the Major Commands (MAJCOM) via the AFTO Form 22 process.

### 2 SCOPE.

This TO prescribes instructions and procedures for the Air Force TCTO process (see Figure 3-3 TCTO Development Process Flow Diagram, and Figure 3-8, TCTO Implementation Process Flow Diagram).

**2.1 Procedures.** This TO repeats procedures from other references when necessary to assist with TCTO management and references to the source documents are made throughout this text as appropriate. Refer to Paragraph 4 and Paragraph 5 of List of Related Publications and List of Applicable Forms. These paragraphs provide numbers and titles of publications and forms cited in this TO.

**2.2 Modifications.** All modifications must be supported by concurrent changes to operational and logistic support elements which are affected by the modification, such as Support Equipment (SE), training equipment, technical data, spares, etc.

**2.3 Requirements.** Generally, TCTOs are required only after the Air Force assumes configuration control of a system or commodity. Engineering Change Proposals (ECP) control modifications prior to Air Force acceptance of the system or commodity being supported.

**2.4 MAJCOM Modifications.** The procedures described in this TO may be used as a guide for Major Command (MAJCOM)-managed modifications.

### 3 ABBREVIATIONS AND ACRONYMS.

All abbreviations and acronyms used in this manual are in accordance with (IAW) ASME Y14.38, Abbreviations and Acronyms for Use on Drawings and Related Documents.

#### NOTE

Acronyms used only once in the TO are not included in this list.

ACO	Administrative Contract Officer
ACPINS	Automated Computer Program Identification Number System
AF	Air Force
AFI	Air Force Instruction
AFKN	Air Force Knowledge Now
AFMAN	Air Force Manual
AFMC	Air Force Materiel Command
AFMCI	Air Force Materiel Command Instruction

## BB23. TECHNICAL ORDER RELEASE APPROVAL -- AIR FORCE

**From:**  
**To:**  
**Cc:**

**Subject:** RE: C-130J TO Release Authorization  
**Date:** Tuesday, January 26, 2016 6:28:13 AM

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AIB/LA ,

Approval for release of the sections that the AIB requests to be released, with redactions and as approved by Lockheed-Martin for the maintenance manuals is granted.

C130J TOMA  
AFLCMC/WIUEG

-----Original Message-----

**From:** AIB/LA  
**Sent:** Monday, January 25, 2016 9:40 AM  
**To:**  
**Cc:**

**Subject:** RE: C-130J TO Release Authorization

Good morning. I've attached the sections that the AIB requests to be released, with redactions and as approved by Lockheed-Martin. Can you confirm that the AIB may release each section? With your approval, this is how each will appear in the report.

AIB/LA  
 , Lt Col, USAF  
Legal Advisor  
C-130J Accident Investigation Board

**From:**  
**To:**  
**Subject:** FW: C-130J TO Release Authorization  
**Date:**  
**Attachments:** [6WC-10.pdf](#)  
[6WC-14.pdf](#)  
[27GS-00-1.pdf](#)  
[29GS-00-1.pdf](#)  
[45GS-00-1.pdf](#)  
[46GS-00-1.pdf](#)  
[70GS-00-1.pdf](#)

---

-----Original Message-----

**From:**  
**Sent:** Monday, January 25, 2016 8:40 AM  
**To:**  
**Subject:** RE: C-130J TO Release Authorization

Good morning. I've attached the sections that the AIB requests to be released, with redactions and as approved by Lockheed-Martin. Can you confirm that the AIB may release each section? With your approval, this is how each will appear in the report. Thank you!

Legal Advisor  
C-130J Accident Investigation Board

## BB24. C-130J-1 AND C-130J-9 RELEASE APPROVAL -- AIR FORCE

**From:**  
**To:** AIB/LA  
**Subject:** FW: C-130J TO Release Authorization  
**Date:** Wednesday, January 27, 2016 1:33:39 PM

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From:  
Sent: Monday, January 25, 2016 9:38 AM  
To: AIB/LA  
Cc:  
Subject: RE: C-130J TO Release Authorization

AIB/LA

I have reviewed the material for your AIB proceedings, and give my release for the pages in the 1C-130J-1 and 1C-130J-9 as delivered by Lockheed Martin. If you have any questions for me, please feel free to contact me any time.

C-130J, MC-130H Flight Manual Manager  
AFLCMC/WIUEG Tech Data Element

Robins AFB, Ga 31098

-----Original Message-----

From:  
Sent: Monday, January 25, 2016 9:33 AM  
To:  
Cc:  
Subject: RE: C-130J TO Release Authorization

Good morning,

Prior to public release, the AIB needs the controlling agency listed on the cover page the -1 and -9 to approve release of the requested portions, in addition to Lockheed-Martin's approval. I have attached each section, as released by L-M. Can you review and let me know whether we are authorized the release the above sections? Thank you.

AIB/LA

, Lt Col, USAF

Legal Advisor  
C-130J Accident Investigation Board

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# BB25. EXCERPTS FROM AFI 11-202V3, GENERAL FLIGHT RULES



**DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS UNITED STATES AIR FORCE  
WASHINGTON DC**

AFI1202V3\_AFGM2015-01  
13 April 2015

MEMORANDUM FOR DISTRIBUTION C  
MAJCOMs/FOAs/DRUs

FROM: HQ USAF/A3  
1630 Air Force Pentagon  
Washington, D.C. 20330-1630

SUBJECT: Air Force Guidance Memorandum to AFI 11-202V3, *General Flight Rules*

1. By Order of the Secretary of the Air Force, this AF Guidance Memorandum immediately implements changes to AFI 11-202, Volume 3, *General Flight Rules*. Compliance with this Memorandum is mandatory. To the extent its directions are inconsistent with other Air Force publications, the information herein prevails, in accordance with AFI 33-360, *Publications and Forms Management*.

2. In advance of an Interim Change to AFI 11-202 Volume 3, the Attachment to this Memorandum provides guidance changes that are effective immediately. An asterisk (\*) indicates newly revised material.

**\*(Replace) Table 2.1. Maximum FDP**

Aircraft Type	Basic Aircrew	Augmented Aircrew
Single Piloted Aircraft	12	NA
Fighter, Attack or Trainer (Dual Control)	12	16
Bomber, Reconnaissance, Electronic Warfare, or Battle Management (Dual Control)	16	24
Tanker/Transport	16	NA
Tanker/Transport with Sleeping Provisions <sup>1</sup>	16	24
Rotary Wing (without Auto Flight Control System)	12	14
Rotary Wing (with Auto Flight Control System)	14	18
Utility	12	18
Unmanned Aircraft System (Single Control)	12	NA
Unmanned Aircraft System (Dual Control)	16	NA
Tilt-rotor	16	NA

*NOTE 1: Sleeping provisions are crew bunks or other MAJCOM-defined rest facilities aboard the aircraft. Rest facilities should provide adequate privacy and noise levels to obtain suitable rest.*

**\*(Replace) 2.6. Maximum Flying Time.** 56 flight hours per 7 consecutive days, 125 flight hours per 30 consecutive days, and 330 flight hours per 90 consecutive days.

**\*(Add) 2.6.1.** Maximum flying time may be waived by MAJCOM/A3 when an ORM assessment determines that mission requirements justify the increased risk. At MAJCOM/A3

discretion, waiver authority may be further delegated to no lower than the operations group commander (or equivalent).

\*(**Replace**) 5.4.3.2.1. If the mission justifies the increased risk, MAJCOM/A3 may authorize a departure in VMC regardless of climb gradient compliance. At MAJCOM/A3 discretion, waiver authority may be further delegated to no lower than the operations group commander (or equivalent).

\*(**Replace**) 6.6.1. In lieu of MAJCOM guidance, when flying IFR, or VFR at night (unaided), over mountainous terrain with the outside air temperature (OAT) colder than ISA minus 10°C, plan to fly at least 1,000 ft. above published minimum altitudes obtained from terrain and IFR enroute charts (e.g. minimum enroute altitudes (MEA), minimum obstruction clearance altitudes (MOCA), OROCAs or other minimum safe altitudes during low-levels). MAJCOM/A3s may publish alternate MDS-specific guidance for aircraft that are equipped to measure and display true altitude with the outside air temperature (OAT) colder than ISA minus 10°C.

3. The guidance in this Memorandum becomes void after one year has elapsed from the date of this Memorandum, or upon incorporation by interim change to, or rewrite of the affected publication, whichever is earlier.

4. Air Force Flight Standards Agency POC for the Guidance Memorandum is Maj  
HQ AFFSA/XOF, DSN                      email:                      @us.af.mil.

TOD D. WOLTERS, Lt Gen, USAF  
Deputy Chief of Staff, Operations

BY ORDER OF THE  
SECRETARY OF THE AIR FORCE

AIR FORCE INSTRUCTION 11-202,  
VOLUME 3



7 NOVEMBER 2014

*Flying Operations*

**GENERAL FLIGHT RULES**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**ACCESSIBILITY:** Publications and forms are available on the e-Publishing website at  
[www.e-publishing.af.mil](http://www.e-publishing.af.mil)

**RELEASABILITY:** There are no releasability restrictions on this publication.

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OPR: HQ AFFSA/XOF

Certified by: HQ USAF/A3O  
(Brig Gen Giovanni Tuck)

Supersedes: AFI11-202V3, 22 October 2010

Pages: 75

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This instruction implements AFPD 11-2, *Aircrew Operations*, by prescribing general flight rules that govern the operation of USAF aircraft (manned and unmanned) flown by USAF pilots, pilots of other services, foreign pilots, and civilian pilots. This instruction applies to Air Force activities operating aircraft on loan or lease, to the extent stipulated in the loan or lease agreement; Air Force Reserve Command (AFRC) units; and to Air National Guard (ANG) units. Public Aircraft Operations (PAO) under government contract for Air Force operations will comply with stipulations documented in written declaration of public aircraft status, applicable Title 14 Code of Federal Regulations (CFR) and this regulation. Air Force Instruction (AFI) 11-2 Mission Design Series (MDS) Specific, Volume 3 instructions (e.g., AFI 11-2KC-10, Volume 3) may contain specific operational guidance unique to individual aircraft and crew positions. MDS-specific, Volume 3 instructions will not be less restrictive than this instruction. Address questions concerning this instruction to Headquarters Air Force Flight Standards Agency (HQ AFFSA) at HQ AFFSA/XOF, 6500 S. MacArthur Blvd, Bldg 4, Room 240, Oklahoma City, OK 73169, email: [hqaffsa.xof@us.af.mil](mailto:hqaffsa.xof@us.af.mil). See Attachment 1 for a list of terms and abbreviations. **Improvement Recommendations:** Use AF Form 847, *Recommendation for Change of Publication*, to recommend changes to this instruction in accordance with (IAW) AFI 11-215, *USAF Flight Manuals Program (FMP)*.

**NOTE:** The reports in this directive are exempt from licensing according to AFI 33-324, *The Air Force Information Collections and Reports Management Program*. Ensure that all records created as a result of processes prescribed in this publication are maintained IAW Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of IAW Air Force Records

## Chapter 6

### ENROUTE

#### 6.1. Airspace Clearance Authority.

6.1.1. **Uncontrolled Airspace.** The PIC is the clearance authority for IFR or VFR flight in uncontrolled airspace (T-0).

#### 6.1.2. Controlled Airspace.

6.1.2.1. **VFR.** The PIC is the clearance authority for VFR flight (if allowed) in controlled airspace (T-0). If cancelling an IFR clearance, VFR flight following is not required if already in contact with the destination's control tower.

6.1.2.2. **IFR.** Pilots shall obtain ATC clearance before an IFR departure (or as soon as practicable after departure while maintaining VMC) or before entering controlled airspace (T-0).

#### 6.2. Minimum Aircraft Altitude.

6.2.1. **VFR.** In the NAS, fly appropriate VFR hemispheric altitudes when higher than 3,000 ft. above ground level (AGL), unless authorized by ATC (T-0). Do not apply these altitudes when turning or holding in a holding pattern of 2 minutes or less. Outside the NAS, fly altitudes or flight levels as specified in FLIP (T-0).

6.2.2. **IFR.** Except when necessary for takeoff, landing, or when being vectored by ATC, do not fly lower than:

6.2.2.1. On Airways, no lower than any published minimum for the airway (T-0).

6.2.2.2. Off Airways, no lower than:

6.2.2.2.1. The Off Route Obstacle Clearance Altitude (OROCA) (T-0);

6.2.2.2.2. The Off Route Terrain Clearance Altitude (ORTCA) (T-0); or,

6.2.2.2.3. An altitude that provides at least 1,000 ft. of clearance above all obstacles within 4 NMs of the course to be flown in non-mountainous terrain, or 2,000 ft. in mountainous terrain (T-0).

6.2.3. **Other Minimum Altitudes.** Except for MAJCOM-approved aerial demonstrations/events or during takeoff or landing, do not operate aircraft below an altitude that, should an emergency landing become necessary, creates undue hazard to persons or property.

6.2.3.1. **Military Routes and Special Use Airspace.** Adhere to minimum altitudes published in FLIP AP for all military routes and special use airspace (e.g., military operations area (MOAs), slow speed training routes (SR), IFR military training routes (IR), VFR military training routes (VR), controlled firing areas, restricted airspace) (T-0).

6.2.3.2. **Non-congested Areas.** Operate over non-congested areas at an altitude at or above 500 ft. AGL except over open water, in special use airspace (SUA), or in sparsely populated areas (T-0). Under such exceptions, do not operate aircraft closer than 500 ft. to any person, vessel, vehicle, or structure (T-0). Helicopters in FAA airspace or

- 6.9.2. Follow equipment requirements and/or limitations published in FLIP (T-0).
- 6.9.3. Advise ATC if an equipment failure or other malfunction results in the loss of aircraft capability to continue operations (T-0).
- 6.9.4. When unable to comply with performance-based operations, revise the route or delay the operation (T-0).

#### 6.10. Legacy Special Civil Airspace Requirements.

**6.10.1. Minimum Navigation Performance Specifications (MNPS) Airspace.** MAJCOMs must provide approval and guidance for operations in MNPS Airspace. Comply with applicable FLIP area planning documents (T-0). HQ USAF/A3O, through HQ AFFSA/XOF ([hqaffsa.xof@us.af.mil](mailto:hqaffsa.xof@us.af.mil)), must approve waivers to the requirements of North Atlantic Track Minimum Navigation Performance Specifications (NAT MNPS) and/or Canadian Minimum Navigation Performance Specifications (CMNPS) airspace.

**6.10.2. Reduced Vertical Separation Minimums (RVSM) Airspace.** Unless specifically cleared by ATC, do not operate in RVSM airspace without functional RVSM equipment (T-0). Comply with applicable FLIP area planning documents (T-0). Notify ATC as soon as possible if required equipment fails after entering RVSM airspace (T-0).

**6.11. VFR Flight.** When in FAA airspace, adhere to the weather minimums listed in Table 6.1. (T-0). When outside of FAA airspace, comply with guidance in FLIP, FCG, or the ICAO VFR weather minimums depicted in Table 6.2. (T-0). When operating under VFR, aircrews must be able to control the aircraft by referencing visual cues from a discernible horizon regardless of cloud clearance requirements (T-0).

6.11.1. Before transition from IFR to VFR, establish appropriate visibility and cloud clearances IAW Table 6.1 or 6.2. (T-0).

6.11.2. During transition from VFR to IFR, maintain appropriate visibility and cloud clearance requirements to a minimum IFR altitude until receipt of the IFR clearance (T-0).

**Table 6.1. NAS VFR Cloud Clearance and Visibility Minimums (T-0).**

FAA Airspace Class	Prevailing or Flight Visibility	Distance from Cloud
Class A	Not Applicable	Not Applicable
Class B	3 SM	Clear of Clouds
Class C and Class D	3 SM	500 ft. below, 1,000 ft. above, and 2,000 ft. horizontal

Class E and G (Fixed-wing) Below 10,000 ft. MSL	3 SM	500 ft. below, 1,000 ft. above, and 2,000 ft. horizontal
Class E and G (Fixed-wing) At or above 10,000 ft. MSL	5 SM	1,000 ft. below, 1,000 ft. above, and 1 SM horizontal
Class E (Helicopter) Below 10,000 ft. MSL	3 SM	500 ft. below, 1,000 ft. above, and 2,000 ft. horizontal
Class E (Helicopter) At or above 10,000 ft. MSL	5 SM	1,000 ft. below, 1,000 ft. above, and 1 SM horizontal
Class G (Helicopter) Below 1,200 ft. AGL	Day: 1/2 SM Night: 1 SM	Clear of clouds if operated at a speed that allows the pilot adequate opportunity to see any air traffic or obstructions in time to avoid a collision.
Class G (Helicopter) Above 1,200 ft. AGL and Below 10,000 ft. MSL	Day: 1 SM Night: 3 SM	500 ft. below, 1,000 ft. above, and 2,000 ft. horizontal
Class G (Helicopter) Above 1,200 ft. AGL and Above 10,000 ft. MSL	5 SM	1,000 ft. below, 1,000 ft. above, and 1 SM horizontal
<b>NOTE:</b> When permitted by MAJCOM and ATC, helicopters, IAW SVFR, may operate in lower visibility conditions, if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid a collision.		

**Table 6.2. ICAO VFR Cloud Clearance and Visibility Minimums (T-0).**

ICAO Airspace Class	Flight Visibility	Distance from Cloud
Class A	Not Applicable	Not Applicable
Class B	8 KMs above 10,000 ft. MSL 5 KMs below 10,000 ft. MSL	Clear of clouds
Class C, D, and E	Same as Class B	1,500 m horizontal 300 m (1,000 ft.) vertical
Class F and G (Fixed-wing) Above 900 m (3,000 ft.) MSL or above 300 m (1,000 ft.) above terrain, whichever is higher	Same as Class B	Same as Class C, D, and E.
Class F and G (Fixed-wing) At and below 900 m (3,000 ft.) or 300 m (1,000 ft.) above terrain whichever is higher	5 KMs	Same as Class C, D, and E.
Class F (Helicopter) Above 900 m (3,000 ft.) or 300 m (1,000 ft.) above terrain whichever is higher	8 KMs above 10,000 ft. MSL 5 KMs below 10,000 ft. MSL	1,500 m horizontal 300 m (1,000 ft.) vertical.
Class F and G (Helicopter) At and below 900 m (3,000 ft.) or 300 m (1,000 ft.) above terrain whichever is higher	5 KMs (See NOTE)	Clear of cloud and in sight of the surface.

Class G (Helicopter)	8 KMs above	1,500 m horizontal
Above 900 m (3,000 ft.) or	10,000 ft. MSL	300 m (1,000 ft.) vertical
300 m (1,000 ft.) above terrain whichever is higher	5 KMs below 10,000 ft. MSL	

**NOTE:** When permitted by MAJCOM and ATC, helicopters, IAW SVFR, may operate in lower visibility conditions, if maneuvered at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid a collision.

**TAB CC**

**AIB MEMBERS AND SME MFRs**

CC1. DESCRIPTION OF INFRARED VIDEO FEED MEMORANDUM, 4 DECEMBER 2015  
.....CC-3

CC2. C-130J ELEVATOR DEFLECTION MEMORANDUM, 16 DECEMBER 2015.....CC-5

CC3. C-130J STANDARD OPERATING PROCEDURES MEMORANDUM,  
27 JANUARY 2016.....CC-7

CC4. C-130J SIMULATOR TESTING MEMORANDUM, 8 DECEMBER 2015.....CC-9

CC5. REVIEW OF MAINTENANCE MEMORANDUM, 11 DECEMBER 2015 .....CC-13

CC6. REVIEW OF MEDICAL RECORDS MEMORANDUM, 11 DECEMBER 2015.....CC-15

CC7. #2 ENGINE PROPELLER POSITION POST MISHAP MEMORANDUM,  
10 DECEMBER 2015.....CC-17

CC8. AFLCMC/WLNEB ANALYSIS, 10 DECEMBER 2015.....CC-19

CC9. AIRCRAFT WEIGHT AND BALANCE CALCULATIONS MEMORANDUM,  
17 DECEMBER 2015.....CC-23

CC10. PURPOSE AND USE OF AIRCRAFT TRIM MEMORANDUM, 15 DECEMBER 2015  
.....CC-25

CC11. ANIMATION EXCERPTS MEMORANDUM, 20 JANUARY 2016 .....CC-27

CC12. SUPPLEMENTAL C-130J STANDARD OPERATING PROCEDURES,  
7 FEBRUARY 2016 .....CC-53

CC13. AIB TIME CONVERSION CHART .....CC-57

CC14. REVIEW OF MAINTENANCE, 9 FEBRUARY 2016.....CC-59

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# CC1. DESCRIPTION OF INFRARED VIDEO FEED MEMORANDUM, 4 DECEMBER 2015



## DEPARTMENT OF THE AIR FORCE ACCIDENT INVESTIGATION BOARD SCOTT AIR FORCE BASE, ILLINOIS

4 December 2015

### MEMORANDUM FOR RECORD

FROM: Accident Investigation Board

SUBJECT: Description of Infrared Video Feed

1. The purpose of this memorandum is to provide a detailed description of the video feed of Torque 62's ground loading sequence and mishap sortie. All times used in this memorandum are in reference to the video time. Due to the time lapse photography used to create the video the total run time is approximately 34 minutes. There is no audio associated with the video.

2. Torque 62 entered the Alpha Ramp at 00:15 and taxied into the south side of the ramp. The aircraft parked at 00:51. At this time the aircraft's elevator was deflected full down and the cargo ramp was closed. Under the infrared video, the number four engine's heat signature appears hotter than the other three engines. Movement of the aircraft's cargo ramp is not visible in the video. A K-Loader approached the aircraft at 01:43 and a second K-Loader took position behind the first at 02:35. The aircraft's elevator was raised at 02:44 and the first pallet was offloaded at 03:57. A forklift positioned behind the second K-Loader removed a pallet from the K-Loaders at 04:34. At 05:40 the second K-Loader moved away from the aircraft with three pallets. It drove to the west of the aircraft and remained clear of the aircraft. Between 07:45 and 10:27 the forklift removed the pallets from the second K-Loader and positioned them south of Alpha Ramp. The first K-Loader moved away from the aircraft at 09:30 carrying the remaining pallets.

3. From 10:00 until 10:42 passengers approached the aircraft from the south. They entered the aircraft at 10:42. Another K-Loader (K-loader 3) approached the aircraft at 13:42. It positioned behind the aircraft at 19:27 for cargo upload. Pallets on this K-Loader were then loaded onto the aircraft. At 25:30 a fourth K-Loader took position behind K-Loader 3 to load the remaining two pallets. At 27:16 the fourth pallet was loaded on the aircraft and at 30:21 the fifth pallet was loaded. At 30:45 the fourth K-Loader moved away from the aircraft followed by K-Loader 3 at 31:54. At 32:07 the FAST members boarded the aircraft. The aircraft taxied from its parked location at 32:51. It departed Alpha Ramp and back-taxied down Runway 31 for takeoff. It was in position for takeoff at 33:34. No elevator movement was visible on the video after 02:44.

4. The aircraft began takeoff roll at 33:36 and was airborne near Alpha Taxiway at 33:41. It began to climb away from the runway rapidly. The aircraft disappeared from the video feed at 33:43 and appeared to be on runway heading with an unusually high nose attitude. It re-appeared at 33:44 angled more than 90 degrees east of runway heading in a nose-low pitch attitude. The aircraft descended rapidly until impact at 33:45. Aircraft impact was coincident with an

explosion that is visible on the video and washed out the video feed until 33:47. At 33:48 a large smoke plume is visible at the location of aircraft impact. The video ends at 33:50.

5. Direct questions regarding this memorandum to the undersigned at DSN:  
Commercial

SIGNED

AIB/PM                      Capt, USAF  
Pilot Member, Accident Investigation Board

## CC2. C-130J ELEVATOR DEFLECTION MEMORANDUM, 16 DECEMBER 2015



### DEPARTMENT OF THE AIR FORCE ACCIDENT INVESTIGATION BOARD SCOTT AIR FORCE BASE, ILLINOIS

16 December 2015

MEMORANDUM FOR RECORD

FROM: Accident Investigation Board

SUBJECT: C-130J Elevator Deflection

1. The Digital Flight Data Recorder (DFDR) and video evidence obtained following the crash of C-130J, T/N 08-3174 on 2 October 2015 at Jalalabad Airfield, Afghanistan, indicated that the aircraft's elevator was raised six to eight degrees. By comparing the DFDR data with Cockpit Voice Recorder (CVR) information, the accident investigation board determined that the raised elevator position occurred coincident with the mishap pilot (MP) stating that he had used a hard-shell Night Vision Goggle (NVG) case to hold the elevator in a raised position.

2. On 18 November 2015, the accident investigation board obtained a hard-shell case with identical dimensions (13.37" x 11.62" x 6") to the one issued to the MP and inserted it forward of the yoke of several C-130J aircraft (T/Ns 06-4631, 08-5726, 11-5732) at Little Rock AFB, Arkansas. (Figure 1)



Figure 1.  
NVG Case Inserted Forward of C-130J Yoke

3. The board measured the deflection of the elevator in inches with the hard-shell case inserted in front of the yoke. This measurement was then converted to degrees of deflection. While there was some variation between aircraft, the elevators of all three C-130Js, deflected between six and seven degrees. (Figure 2)



Figure 2.  
C-130J Elevator Deflection

4. As a result, the board concluded that the MP had inserted a hard-shell NVG case forward of the MA's yoke and failed to remove the case prior to takeoff.

SIGNED

AIB/PSME                      Lt Col, USAF  
Pilot SME, Accident Investigation Board

**CC3. C-130J STANDARD OPERATING PROCEDURES MEMORANDUM,  
27 JANUARY 2016**



**DEPARTMENT OF THE AIR FORCE  
ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS**

27 January 2016

**MEMORANDUM FOR RECORD**

**FROM:** Accident Investigation Board

**SUBJECT:** C-130J Standard Operating Procedures

1. The purpose of this memorandum is to detail C-130J standard operating procedures relevant to the investigation of the crash of C-130J, T/N 08-3174, on 2 October 15. This memorandum also covers generally accepted techniques and practices in the C-130J community.
2. When operating at night, in a tactical flying environment, aircrews are expected to operate utilizing Night Vision Goggles (NVGs). The use of NVGs allows pilots to see more than is visible to the naked eye in low illumination environments. Head down displays (HDDs) are not visible through NVGs due to the NVGs being focused for distant vision; therefore, pilots look below the NVGs to read indications inside the flight deck. This requires that instruments be visible to the naked eye, but to increase the effectiveness of the NVGs, pilots will reduce the level of flight deck lighting to the minimum required for visibility. However, the C-130J HUD is focused to infinity, visible through NVGs, and provides all instrument readings required for flight. During a normal takeoff at night there is no requirement for the aircrew to look down at the HDDs after checking their horsepower setting.
3. At Jalalabad Airfield, engine running onload/offload (ERO) procedures are the standard operating procedure. During an ERO, the pilot and co-pilot are responsible for aircraft security, monitoring the brakes, calculating takeoff and landing data based on the passenger and cargo load, preparing the aircraft for flight, and coordinating clearances with the airfield controller. An ERO in a nighttime contingency environment is further complicated by the fact that most of the above actions are done under darkened conditions or with the use of NVGs. This limits visibility in the aircraft and the potential threat of enemy activity drives aircrews to minimize the use of internal cockpit lighting. Performing a nighttime ERO during contingency operations is a complex procedure requiring the full attention of the aircrew to maintain safe parameters.
4. Direct questions regarding this memorandum to the undersigned at

SIGNED

AIB/PM \_\_\_\_\_, Captain, USAF  
Pilot Member, Accident Investigation Board

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# CC4. C-130J SIMULATOR TESTING MEMORANDUM, 8 DECEMBER 2015



## DEPARTMENT OF THE AIR FORCE ACCIDENT INVESTIGATION BOARD SCOTT AIR FORCE BASE, ILLINOIS

8 December 2015

### MEMORANDUM FOR RECORD

FROM: Accident Investigation Board (AIB)

SUBJECT: C-130J Simulator Testing

1. The purpose of this memorandum is to document the results of the flight simulations I performed while investigating the 2 October 2015 crash of C-130J, T/N 08-3174 at Jalalabad Airfield, Afghanistan. I am a current and qualified C-130J evaluator pilot with approximately 1,440 hours in the C-130J.
2. On 16 November 2015, I conducted a total of 19 tests in Little Rock's C-130J simulator. The C-130J simulator replicates C-130J flight characteristics. The simulator has a highly detailed flight deck to include all control systems, a panoramic view, and full motion capability. The simulator allows aviators to train for real-world flying situations. The simulator is capable of replicating all operations within the C-130J's permissible flight envelope to include calculation of Takeoff and Landing Data (TOLD). However, aero-data is not available in the post stall regime, so accurate replication of the mishap sortie (MS) is only possible up to the point where the mishap aircraft (MA) stalled.
3. The board president, pilot Subject Matter Expert, and I attempted to recreate the MS. We placed a hard-shell NVG case of identical dimensions to the one issued to the mishap pilot forward of the yoke. The hard-shell NVG case became inconspicuous to all three pilot members during the course of multiple takeoff sequences. We conducted a total of 19 simulated takeoffs, during which we were able to accurately recreate the MA's flight pattern.
4. During the flight simulator testing we conducted takeoffs with a variety of aircraft gross weights and the aircraft CG set throughout the flight limits envelope. CG did not significantly affect the attempts to recreate the MS and the simulator was controllable. Due to limitations of the simulator it was not possible to simulate aircraft CG out of limits. Although aircraft gross weight affected the rotation and liftoff speeds of the aircraft it did not affect the attempts to recreate the MS after liftoff.
5. Once in flight with the hard-shell NVG case forward of the yoke, the simulator near-perfectly replicated the MS. However, replication of the rotation and takeoff speeds required the yoke to be deflected an additional  $\frac{3}{4}$  of an inch. After discussions with simulator operators, maintenance technicians, and flight control specialists, the AIB determined that the difference in the  $\frac{3}{4}$  inch measurement was due to discrepancies between the simulator and aircraft. Measurements of the same deflection and case position in several aircraft on the flight line

showed differences of up to ¼ of an inch on the control column and almost one degree of elevator deflection while still within design tolerance. The board determined the discrepancies between the simulator and aircraft were acceptable and did not cause the board to question the results of the simulator tests.

6. The C-130J flight simulator was capable of calculating TOLD and takeoff speeds based on the reported field conditions at Jalalabad Airfield. The worst-case Critical Field Length (CFL) based on a 5 knot tailwind and maximum permissible cargo weight was calculated to be approximately 5,700 feet. This is the amount of runway required to perform a normal takeoff and aligns with the mishap pilot's comment that they had the runway by 750 feet. The CFL based on reported conditions was calculated to be approximately 5,200 feet. The rotation speed associated with this takeoff was calculated to be 122 knots. The Adjusted Minimum Field Length for Maximum Effort Takeoff (AMFLMETO) was calculated to be approximately 4,200 feet. This is the amount of runway required to perform an Adjusted Maximum Effort (AMAX) takeoff and matches the briefing of the mishap copilot (MCP). The AMAX takeoff rotation speed was calculated to be 111 knots, which matches the briefing given by the MCP. The AMAX takeoff was not required as the mishap crew had the available runway to perform normal takeoff procedures.

7. From these simulator profiles I concluded:

- a. The C-130J simulator was capable of replicating the aircraft flight characteristics from brake release to the aircraft stall. However, after the stall the simulator was unable to accurately depict the expected flight characteristics throughout the stall.
- b. The aircraft was controllable throughout acceptable CG limits (21-30% MAC) and CG did not significantly affect flight control response. The simulator was unable to replicate flight characteristics outside of CG limits.
- c. The aircraft was controllable throughout acceptable weight limits and gross weight did not significantly affect flight control response.
- d. With the hard-shell NVG case placed in front of the control yoke, the simulator replicated the flight characteristics of the mishap sortie within an acceptable margin of error up to the stall.
- e. The simulator's stall warning and stick pusher system activated in an accurate manner during the mishap sequence but was unable to overcome the control block created by the hard-shell NVG case.
- f. With the hard-shell NVG case removed upon recognition of the flight control block, the aircraft could be recovered prior to the stall.

- g. With proper control failure procedure applied, the aircraft could be flown with the hard-shell NVG case blocking the controls.
- h. The AMAX takeoff conducted during the mishap sortie was not required and the runway available would have supported normal takeoff procedures.

8. Direct questions regarding this memorandum to the Capt <sup>AIB/PM</sup> at DSN: /  
Commercial

SIGNED

<sup>AIB/PM</sup> Capt, USAF  
Pilot Member, Accident Investigation Board

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# CC5. REVIEW OF MAINTENANCE MEMORANDUM, 11 DECEMBER 2015



## DEPARTMENT OF THE AIR FORCE ACCIDENT INVESTIGATION BOARD SCOTT AIR FORCE BASE, ILLINOIS

11 December 2015

### MEMORANDUM FOR RECORD

FROM: Accident Investigation Board (AIB)

SUBJECT: Review of Maintenance

1. The purpose of this memorandum is to provide a general statement documenting the review of maintenance records and personnel training records for the mishap aircraft (MA), C-130J, T/N 08-3174 that crashed on 2 October 2015 in Jalalabad, Afghanistan. I used elements of the CVR, DFDR, photographs of the mishap site, real-time video, video animation, engineering analysis, and witness testimony throughout my investigation to assist in verifying and determining that maintenance was not a factor in this mishap. I also reviewed documents from the 317<sup>th</sup> Aircraft Maintenance Squadron at Dyess AFB, Texas, and the 774<sup>th</sup> Expeditionary Aircraft Maintenance Squadron at Bagram Airfield, Afghanistan. The 317 AMXS maintained the MA, and related forms, while at home station; the 774 EAMXS maintained the MA, and related forms, while deployed.
2. I am a maintenance officer with approximately 15 years of Air Force Service in the aircraft maintenance career field. I am currently the Deputy Maintenance Group Commander, 19th Maintenance Group, Little Rock AFB, Arkansas. I lead 1,200 maintenance personnel, responsible for maintenance operations and production of assigned C-130J aircraft. I have experience with the following aircraft: C-130E/H/J, C-17, KC-10, A-10, and MQ-1. I have supervised flight line and back shop maintenance personnel. I have reviewed, approved, and signed training records in tracking databases for both officers and enlisted personnel.
3. The records I reviewed included all maintenance documentation Air Force Technical Order (AFTO) 781 series forms, Integrated Maintenance Data System (IMDS), data transfer and diagnostic system (DTADS) and historical records related to T/N 08-3174. I concluded all maintenance actions were performed and documented properly IAW AFTO 00-20-1. Historical records show all Time Compliance Technical Orders (TCTO) were current. A comprehensive review of the IMDS history and available 781A forms revealed the following unscheduled maintenance since the last scheduled inspection: The right forward main landing gear wheel was replaced on 9 July 2015; the #4 oil cooler flap actuator was removed and replaced on 31 July 2015 and again on 21 September 2015; and the #4 Nacelle Interface Unit was replaced on 24 September 2015. There is no evidence that non-compliance with maintenance actions, TCTOs, or forms documentation was a factor in this mishap.
4. A review of maintenance records revealed the most recent preflight inspection was performed on 30 September 2015 at 0230L hours and a thru-flight inspection was performed on 30 September 2015 at 2130L hours. The production superintendent cleared the MA for flight and

signed the exceptional release prior to the flight on 1 October 2015. The most recent Home Station Check (HSC) was completed on 24 April 2015. The next HSC was due on 19 January 2016. The most recent Isochronal Inspection (ISO) was completed on 27 April 2015. The next ISO was due on 15 October 2016. The most recent Programmed Depot Maintenance (PDM) was completed on 21 January 2011. The next PDM was due on 21 January 2017. The MA's inspections were current and completed at the proper intervals.

5. I reviewed maintenance training records for personnel who completed maintenance actions on the MA. All personnel performing maintenance on the MA were qualified to perform these tasks.

6. Fuel samples from the truck that refueled the MA were tested. All fuel samples were within limits and free of contamination. No viable engine oil and hydraulic fluid samples were obtained from the MA post-impact.

7. The DFDR information from aircraft systems, to include engine, hydraulic, flight control and stall warning, was reviewed and concluded to be operating normally throughout the mishap flight sequence. One engine anomaly discovered that required further investigation was found on the real-time infrared (IR) video. Throughout the ground operations and takeoff sequence, the IR video showed the #4 engine apparently running hot, as indicated by a white color surrounding the engine. Upon investigation into the maintenance history of the #4 engine, there was evidence of the #4 engine experiencing high oil temperatures and a sticking oil cooler flap. Maintenance replaced the Nacelle Interface Unit (NIU) for the sticking oil cooler flap and the oil temperatures were determined to be within limits. Furthermore, the DFDR confirmed all four engines were operating normally throughout the mishap sortie. There was no evidence found to indicate the engines were a factor in this mishap.

8. The MA was a total loss, therefore limited aircraft systems were recovered post-impact. The tail section was largely intact to include the tail section flight control surfaces. The elevator boost pack was shipped to Ogden Air Logistics Center, 309th Commodities Maintenance Group, for a functionality bench check. The report confirmed that the elevator boost pack from the MA functioned as designed, even after exposure to extreme temperatures post-impact. There was no indication of structural or mechanical failure in any areas reviewed. A thorough review of Lockheed Martin and Air Force Life Cycle Management Center analyses, live video feed, mishap video animation, cockpit voice recorder, and DFDR showed all systems performed normally up to the time of impact.

9. My review revealed no evidence that maintenance issues contributed to the mishap of aircraft C-130J, T/N 08-3174.

SIGNED

AIB/MX

Lt Col, USAF

Maintenance Member, Accident Investigation Board

CC6. REVIEW OF MEDICAL RECORDS MEMORANDUM,  
11 DECEMBER 2015



DEPARTMENT OF THE AIR FORCE  
ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS

11 December 2015

MEMORANDUM FOR RECORD

FROM: Accident Investigation Board Medical Member

SUBJECT: Review of Medical Records

1. The purpose of the memorandum is to provide a general statement documenting the review of medical records for the flight crew and personnel onboard the C-130J, T/N 08-3174, that crashed on 2 October 2015 in Jalalabad Airfield, Afghanistan. No medical records are included in the AIB report.

2. I reviewed the autopsy reports for all eleven personnel onboard the MA. Post mishap, the eleven deceased individuals were recovered, positively identified, and transferred from Jalalabad Airfield to the Armed Forces Medical Examiner System (AFMES), Dover AFB, Delaware for autopsy examination. The cause of death for all individuals was listed as "Multiple Injuries" and "Accidental." No soot was identified in the upper or lower airways indicating no evidence of life post-impact. Injuries sustained by each were consistent with the nature of the mishap. All eleven individuals died instantly upon impact prior to the post-crash fire.

3. The three Afghans who were in the guard tower remained within the care and custody of local Afghanistan officials. No records were available for me to review, but multiple sources confirmed each of the three died from the post-impact fire.

4. I reviewed all relevant medical records for the mishap crew (MC) involved in the mishap sortie. All four crewmembers had a current and valid AF 2992, *Medical Recommendation for Flying or Special Operational Duty* physicals. All four members were medically qualified for worldwide duty. The fitness scores were reviewed and all four members met Air Force standards. The MCP and ML1 had current and valid medical flying waivers.

5. I reviewed the MC's dental records and found MP, ML1 ML2 to have a dental classification of 1, which indicated no unresolved dental health problems. The MCP had a dental classification of 2 due to an elective procedure to be performed after deployment; the MCP denied dental pain or distracting dental factors.

6. Post-mortem toxicology testing was performed on the MC. Samples were submitted to the AFMES for analysis. All specimens were examined for carbon monoxide (CO), cyanide, volatiles (including alcohol) and drugs. All results were negative with the exception of the MCP, who had ethanol present in his system. The AFMES medical examiner attributed the ethanol

presence to decomposition. Specimens from the MC were not adequate for detection for CO or cyanide.

7. The 72 hour and 7 day medical history was not obtained due to the deployment setting and inconsistent interactions between aircrews. Since all four crewmembers perished in the accident, individual fatigue levels could not be established using the Fatigue Avoidance Scheduling Tool (FAST). FAST is a commercially available tool developed in conjunction with the USAF to predict times of fatigue and assist schedulers in not scheduling critical tasks during times of maximum fatigue. Prior to the mishap, each crewmember's medical records indicated all individuals were in good health with no recent performance-limiting illnesses.

8. Direct questions regarding this memorandum to the undersigned at DSN:  
Commercial

SIGNED

AIB/MM                      Capt, MC, FS, USAF  
Medical Advisor, Accident Investigation Board

**CC7. #2 ENGINE PROPELLER POSITION POST MISHAP MEMORANDUM,  
10 DECEMBER 2015**



**DEPARTMENT OF THE AIR FORCE**  
ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS

10 December 2015

MEMORANDUM FOR RECORD

FROM: Accident Investigation Board

SUBJECT: #2 Engine Propeller Position Post Mishap

1. During my on scene investigation of the wreckage of the MA, TN 08-3174, I noticed the number two engine propeller counterweights were at an angle that appeared to be close to the "Feathered" position, potentially indicating that the engine had somehow shut down during the course of the mishap sequence (Figure 1). In addition, I noted the counterweights associated with engine propellers number one, three, and four appeared to be at an angle that would be indicative of maximum power selection (Figure 2).



Figure 1 Engine #2 Post-Mishap



Figure 2 Engine #4 Post-Mishap

2. The DFDR and CVR data show that all four engines were operating normally, near maximum power selection, throughout the mishap sequence and that the mishap crew, at no time, verbally called for an engine shutdown nor commented on any engine anomalies.

3. After discussions with the AFLCMC SME, it was determined that the engines were operating normally during the mishap sequence and that the change in the angle of the counterweights on the number two engine propeller were most likely due to the forces experienced during the impact.

SIGNED

PATRICK X. MORDENTE  
Brigadier General, USAF  
President, Accident Investigation Board

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## CC8. AFLCMC/WLNEB ANALYSIS, 10 DECEMBER 2015

Mishap System: C-130J, T/N 08-3174

Date: 10 Dec 2015

Mishap Date: 2 Oct 2015

Investigator: AIB/SME, GS-13, DAF  
MECSIP and Airworthiness Lead

Assessment: As part of the accident investigation board (AIB) for mishap aircraft 08-3174 information from both the digital flight data recorder (DFDR) and the factual report<sup>1</sup> from the safety investigation board (SIB) was analyzed. Figure 1 shows the data output from the elevator position transducer during the flight from the main operating base (MOB) to the forward operating base (FOB).

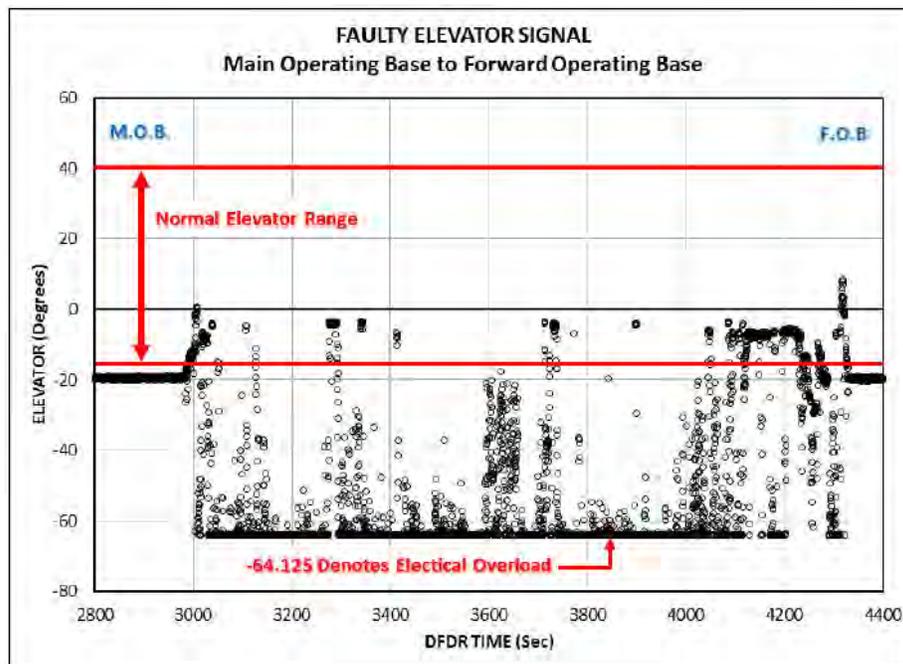


Figure 1 – Faulty Elevator Signal from MOB to FOB<sup>1</sup>

the elevator position transducer is questionable while in the flight range, indicated by the reading of a -64 degree value at intermittent periods along with values consistently below the normal operating range of -15 degrees nose down deflection. The -64 degree value indicates a potential wiring issue and with the subject transducer being tested<sup>1</sup> and indicating properly this would suggest that the problem was intermittent. Figure 2 shows the elevator signal output from the transducer while the aircraft was on the ground at the FOB.

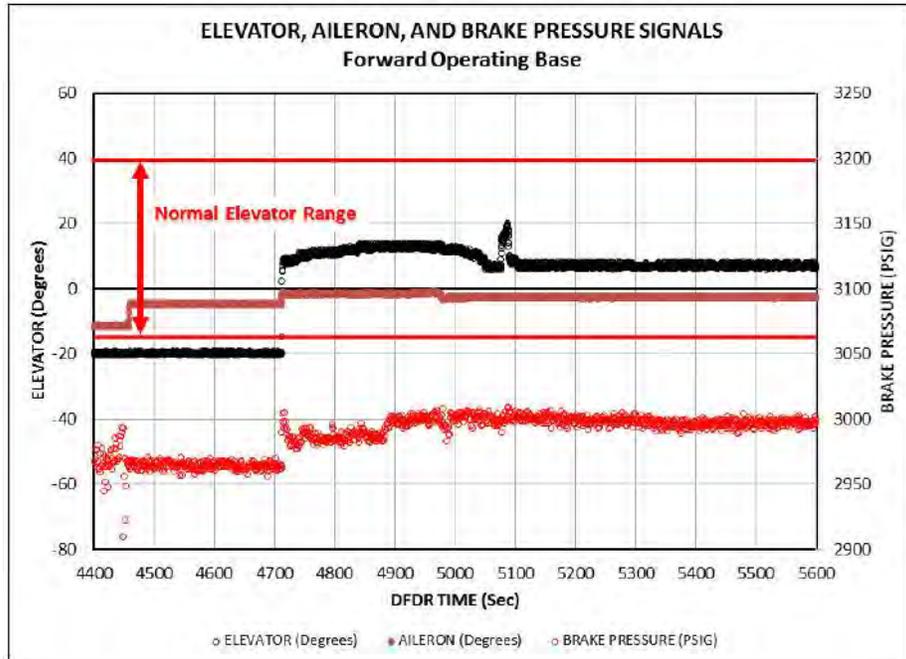


Figure 2 –Elevator Signal while on Ground at FOB<sup>1</sup>

Once the mishap aircraft landed at the FOB, the signal seems to return to normal operating ranges indicating that the intermittent connection causing the problem was restored after landing. while several causes could attribute to the faulty signal experienced by the transducer, including damaged wiring, poor bonding, or a loose wire, a root cause could not be determined for the signal issues seen in the DFDR data. Figure 3 shows the transducer output prior to departure at the FOB.

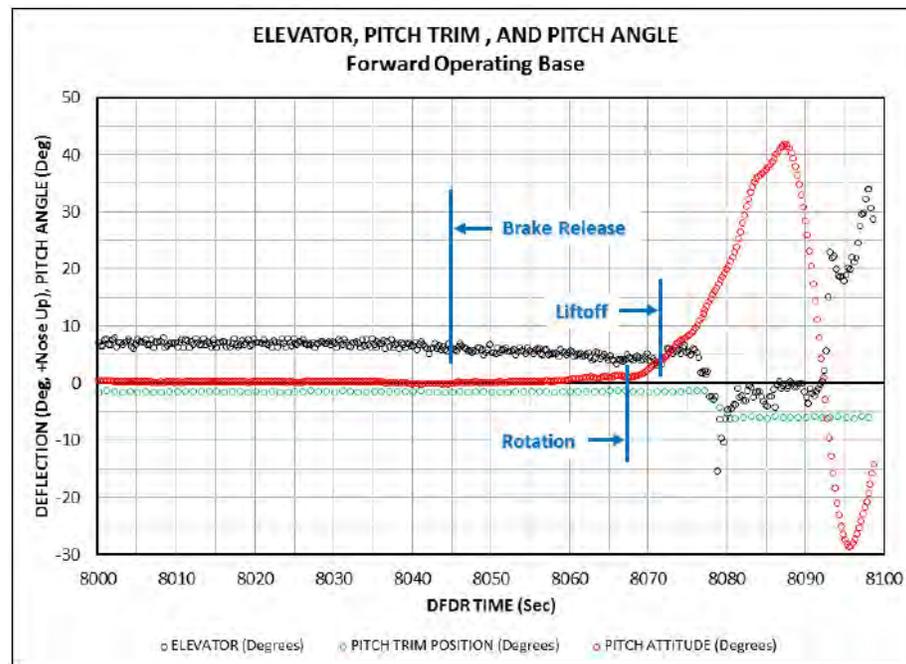


Figure 3 –Elevator Signal during Departure from FOB1

The elevator data shown in Figure 3 prior to liftoff is reliable, as all indications of previous flights show that once on the ground the signal returns to normal operating ranges. The small decrease in elevator angle from the +6 degree to +8 degree range to the +3 degree to +5 degree range most likely occurred due the wind loads as the aircraft accelerated possibly compressing the object lodged behind the controls.

Once in the flight range, the data becomes suspect and since there was no documented maintenance on the transducer wiring or any crew indication of a problem the possibility of a signal issue on the mishap flight cannot be ruled out.

While the elevator transducer output cannot be considered reliable, there were no indications that the elevator had any kind of mechanical failures. This conclusion is based on the ground data showing the elevator operating as expected coupled with the uneventful previous flight and sworn testimony by the ground crews that there was no contact with the elevator during loading of the cargo at the FOB.

References:

1. *Technical Report of C-130J-30 08-3174*, Lockheed Martin Aeronautics Company, Oct 2015.

**CC9. AIRCRAFT WEIGHT AND BALANCE CALCULATIONS  
MEMORANDUM, 17 DECEMBER 2015**



**DEPARTMENT OF THE AIR FORCE  
ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS**

17 December 2015

**MEMORANDUM FOR RECORD**

**FROM:** Accident Investigation Board

**SUBJECT:** Aircraft Weight and Balance Calculations

1. The purpose of this memorandum is to provide a detailed description of the center of gravity (CG) calculations during Torque 62's mishap sortie. Torque 62's mission consisted of the offload of six pallets and the upload of five pallets and five passengers at Jalalabad Airfield, Afghanistan. The crew conducted this operation utilizing the Engine Running Onload/Offload checklist.
2. Prior to loading the cargo, the aircraft's operating weight was calculated at 92,134 lbs. The fuel load was 18,700 lbs. The crew was tasked with the onload of five pallets weighing, 8,230 lbs, 7,510 lbs, 9,170 lbs, 7,558 lbs, and 6,918 lbs. The original loadplan had the pallets loaded in pallet positions two, four, five, six, and seven, respectively. In this state, the aircraft would have had a calculated center of gravity (CG) of 27.4 % of Mean Aerodynamic Chord (MAC).
3. When passengers were added to the cargo load, ML1 and ML2 decided to shift the pallet in pallet position two to pallet position three, as depicted on the original loadplan with an arrow drawn in by the Ramp Coordinator. The Ramp Coordinator also confirmed that the pallet was shifted on the aircraft. ML1 stated that the combined weight of the passengers was 1,000 lbs. The passengers were seated on the left side at flight station 423. The Ramp Coordinator on duty that night confirmed that the passengers boarded the aircraft with only light carry-on bags. After these changes, I calculated the aircraft's CG at 28.6% of MAC, as stated by ML1 on the CVR. At the MA's weight of 153,236 lbs, the CG window for takeoff was between 21% - 30% of MAC. The MA was within the CG window for takeoff.
4. All CGs were calculated with a C-130J CNI-MU and a C-130J simulator at Little Rock AFB, AR.
5. Direct questions regarding this memorandum to the undersigned at DSN:  
Commercial

SIGNED

AIB/LM                      MSgt, USAF  
Loadmaster Member, Accident Investigation Board

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**CC10. PURPOSE AND USE OF AIRCRAFT TRIM MEMORANDUM,  
15 DECEMBER 2015**



**DEPARTMENT OF THE AIR FORCE  
ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS**

15 December 2015

**MEMORANDUM FOR RECORD**

**FROM:** Accident Investigation Board

**SUBJECT:** Purpose and Use of Aircraft Trim

1. The purpose of this memorandum is to provide a general overview of aircraft trim and detail the flight characteristics of a trimmed and untrimmed aircraft.
2. Aircraft trim is used to reduce the force required on the control yoke to move a flight control surface. A trim tab is a small "tab" attached to the trailing edge of a larger control surface (elevator, ailerons, or rudder). The tab can be set to a range of angles which then adjusts the neutral state of the control surface. The "neutral state" being the resting state of the control surface without control input. Ideally the trim system is adjusted to reduce the control inputs required to maintain the desired flight attitude. Due to the critical nature of the trim system many aircraft have a "primary" and an "emergency" trim system available. The emergency trim system is designed to operate in the event of a primary trim system malfunction. The C-130J utilizes a normal (primary) and emergency trim system in this manner.
3. A "trimmed" aircraft refers to an aircraft that will maintain straight and level flight without pilot input. In contrast, an aircraft that is "untrimmed" requires pilot input to maintain the desired flight attitude. The further the aircraft moves out of the trimmed state the more control input (and force) is required to overcome the effect of the improperly positioned trim tab.
4. Direct questions regarding this memorandum to the undersigned at DSN:  
Commercial

SIGNED

AIB/PM      Capt, USAF  
Pilot Member, Accident Investigation Board

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**DEPARTMENT OF THE AIR FORCE**  
**ACCIDENT INVESTIGATION BOARD**  
**SCOTT AIR FORCE BASE, ILLINOIS**

20 January 2016

**MEMORANDUM FOR RECORD**

**FROM:** Accident Investigation Board

**SUBJECT:** Animation Excerpts

1. An animation was produced to depict the mishap sortie (MS) based on the Digital Flight Data Recorder (DFDR) information. The attached excerpts of the animation were selected to depict the attitude of the mishap aircraft (MA) throughout the critical phases of the MS.
2. The selected images can be found following this memorandum at Tab CC-28 through CC-52.

SIGNED

AIB/PM  
, Capt, USAF  
Pilot Member, Accident Investigation Board































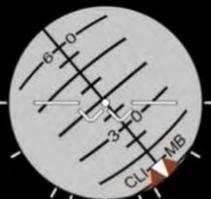
19:46:07Z

○WOW

34 35 C

PROP PITCH (DEG)

THROTTLES (DEG)





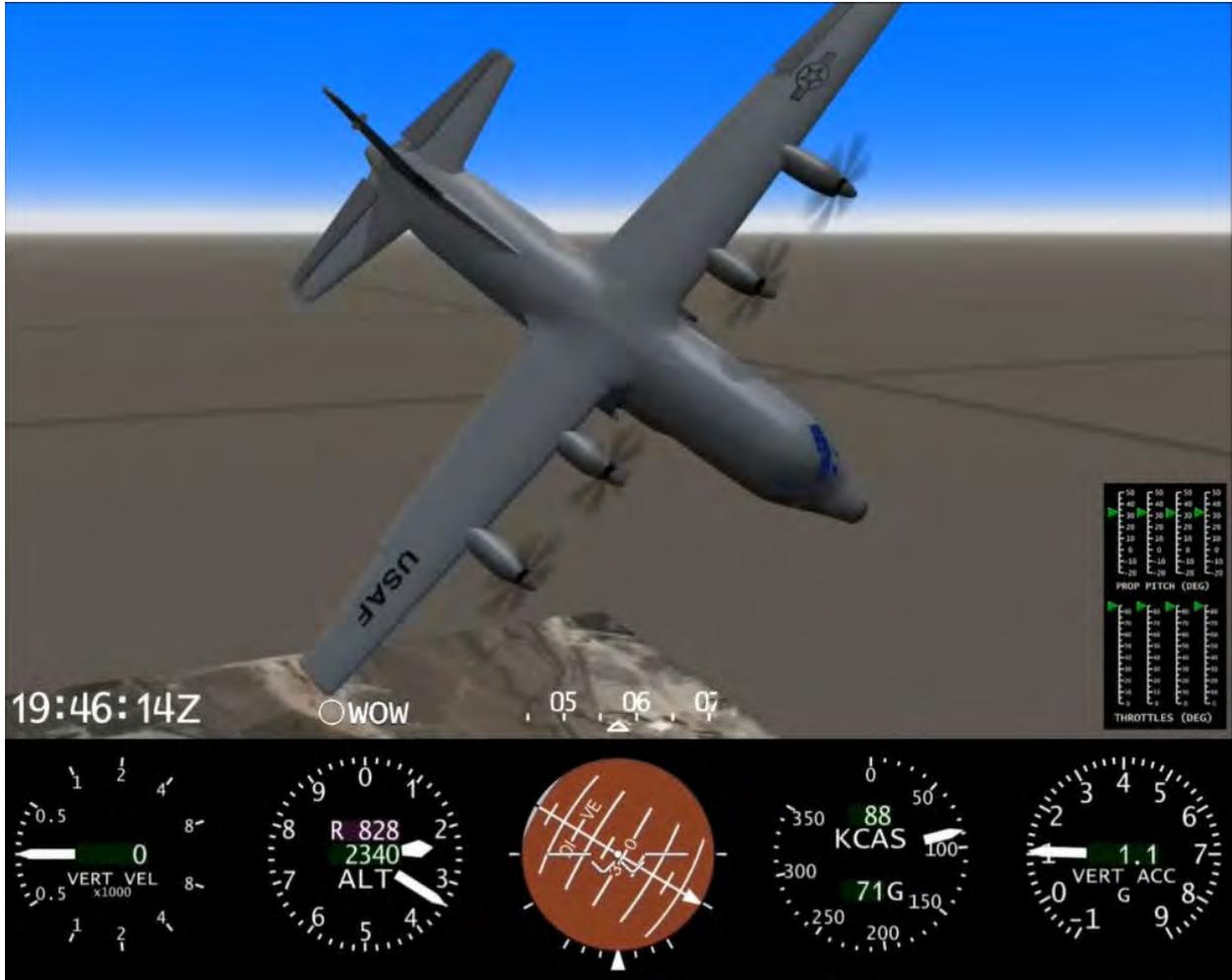


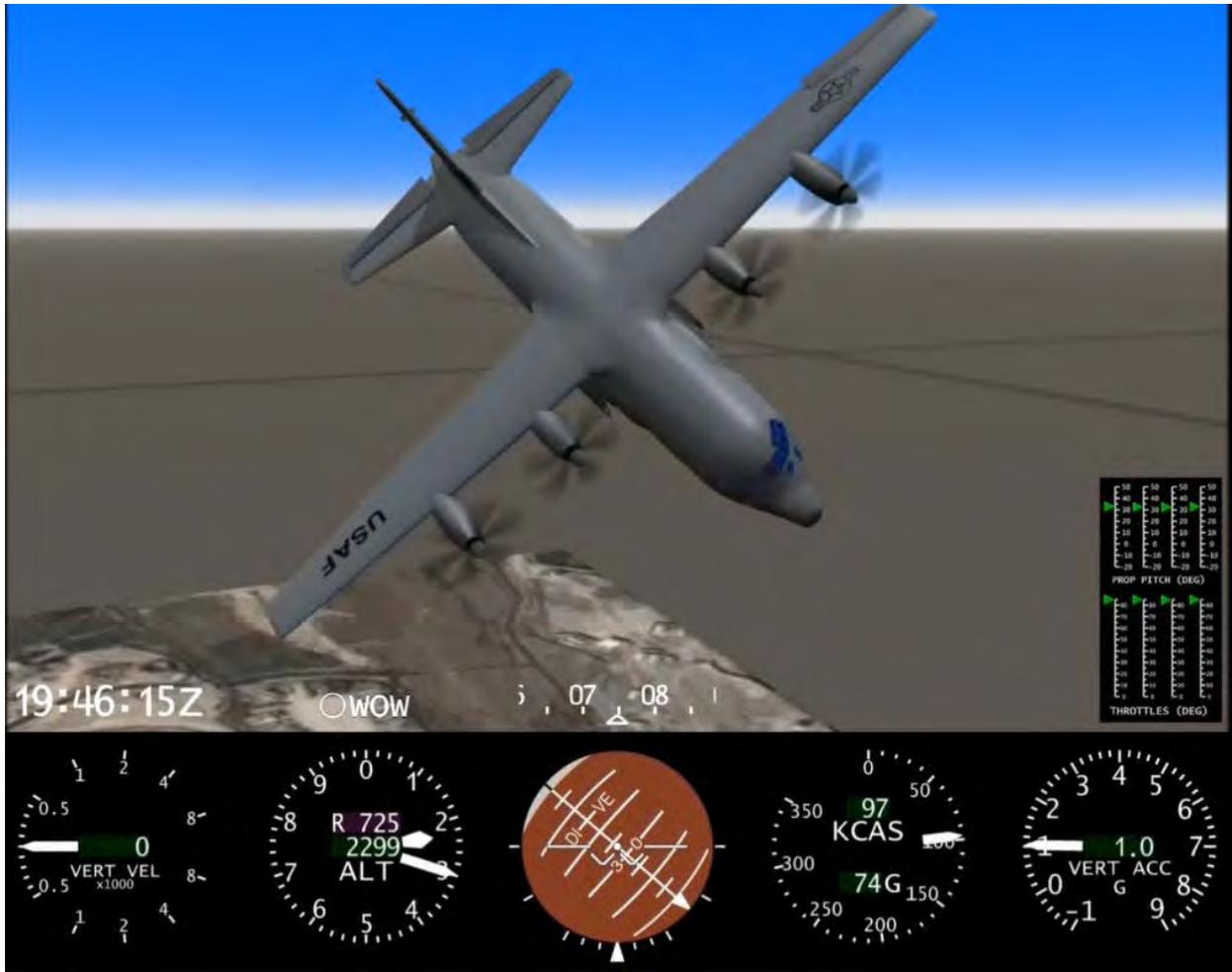
















# CC12. SUPPLEMENTAL C-130J STANDARD OPERATING PROCEDURES, 7 FEBRUARY 2016



## DEPARTMENT OF THE AIR FORCE

ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS

7 February 2016

### MEMORANDUM FOR RECORD

FROM: Accident Investigation Board

SUBJECT: Supplemental C-130J Standard Operating Procedures

1. This memorandum serves as a supplement to the C-130J Standard Operating Procedures Memorandum, dated 27 January 2016, located at Tab CC-7 and the C-130J Simulator Testing Memorandum, dated 8 December 2015, located at Tab CC-9.
2. The mishap aircraft (MA) was assigned to the 317th Airlift Group (317 AG), located at Dyess AFB, Texas, and operated by the 39th Airlift Squadron (39 AS). While operating at the deployed location, the MA and mishap crew (MC) were assigned to the 455th Air Expeditionary Wing and operated under the 774th Expeditionary Airlift Squadron, both of which are located at Bagram Airfield (BAF), Afghanistan.
3. The mission cut, located at Tab K-4, describes the basics of a tasked mission. It lists the mission number, callsign, tasked wing, the aircraft assigned to the mission, the mission type, and the itinerary. The locations on the itinerary are identified by the airport identifier, which is a unique 4-letter code assigned to each airfield. For example, OAIX is Bagram Airfield; OAJL is Jalalabad Airfield. The itinerary also lists expected takeoff and land times at each location. As the mission is accomplished, the itinerary is updated with relevant information. The times entered may differ from the actual times based on input error, a delay in transmission of mission details, or the displayed aircraft time being different from the displayed tower/controller times. Notable mission details are included in the "Info Remarks" section. In the case of this MA, the fact that the MA had to return to BAF due to a bird strike is noted here. The absence of information about a leg of a mission indicates it was uneventful.
4. The AIB determined the location of each crew member on the mishap sortie based on information obtained from the cockpit voice recorder (CVR) transcript at Tab N and photographs that were redacted in accordance with Air Force Instruction (AFI) 51-503, *Aerospace and Ground Accident Investigations*, 14 April 2015, paragraph 8.3.9. The usual crew configuration on a C-130J has the aircraft commander (also known as pilot) in the left seat, the first pilot (also known as co-pilot) in the right seat, and the two loadmasters in the cargo compartment, seated in position to scan out the rear windows. The AIB determined the MC was in the standard crew configuration. At Tab N-17, the mishap co-pilot (MCP) states, "Copilot's controls, your nose wheel steering." Since nose wheel steering is only possible in the left seat of the C-130J, we know the MP was seated in the left seat, and the MCP was seated in the right seat. On page N-16, mishap loadmaster 1 (ML1) speaks on the interplane communication system and states, "Complete load." This confirms he has completed the checklist and is in the cargo compartment

ready to continue the mission. After a review of all information and mishap photographs and an evaluation of MLs standard operating procedures regarding MLs crew positions, the AIB determined that ML1 and ML2 were in the rear of the aircraft at expected MLs crew positions, with ML2 in the farthest back position on the left side of the MA.

5. The front side of the ORM worksheet was completed by the MC when they showed to the squadron building. Each crew member annotated their personal ORM score based on a variety of factors. The MCP entered a score of “1” which was not an unusual score as anything less than 10 does not require any additional consultation or approval (Tab K-6). This indicates that all crew members felt they were physically and mentally ready to proceed with the planned mission. The back side of the ORM worksheet is completed by the aircraft commander (in this case the MP) and is designed to assess the overall mission risk as determined by mission complexity. The combination of factors on this side of the ORM sheet totaled 34 (Tab K-5). The combination of the mission factors and personal factors is the total ORM score, in this case 35 (Tab K-5). A score less than 50 is considered a “low” risk score and does not require any additional approval beyond the aircraft commander. The combination of individual risk scores and mission complexity scores indicates that the aircrew determined they were safe and prepared to fly the mission and that the squadron leadership did not determine the mission to be unusually complex in comparison to the normal mission in the theater of operations.

6. Normally during a takeoff roll, the pilot keeps the elevator deflected down until the aircraft reaches rotation speed, at which point the pilot pulls the yoke aft, which raises the elevator, and the aircraft becomes airborne. Raising the elevator lifts the control surface above horizontal and is accomplished by pulling the yoke aft (toward the pilot). In flight, upward elevator movement into the airstream exerts pressure to pitch the MA up; downward movement of the elevator causes the opposite effect. However, on the ground loadmasters may make this request to accommodate loading or offloading of tall cargo in an effort to avoid the cargo coming into contact with the elevator. This is not an unusual request. Blocking the flight controls during loading operations (or bracing the yoke to maintain a raised elevator position) is a non-standard procedure. I conducted a thorough review of TO 1C-130J-1, TO 1C-130J-9, AFI 11-2C-130Jv3, and AFTTP 3-3.C-130 and found no comment that addresses how to raise the elevator or that prohibits this in any manner. As such, there was no regulatory guidance to prohibit the act, or to address the proper placement and removal of an object blocking the controls. This factor, combined with the lack of a flight control check following an engine running offload, but prior to takeoff, made it incumbent on the MP and the MCP to remember to remove the hard-shell NVG case from forward of the yoke. To check the flight controls, the MP and MCP would move the control column forward, turn the control wheel, and move the rudders to ensure all three deflected through the full range of motion. When accomplished, all flight control checks occur solely within the flight deck; no external checks accompany the internal checks. The AIB could not determine whether a flight control check would have alerted the MP or MCP to the hard-shell NVG case forward of the yoke.

7. Visual Meteorological Conditions (VMC) describe the flight conditions that do not require the use of aircraft instruments to determine aircraft attitude relative to the earth. VMC criteria for various types of airspace are defined in AFI 11-202v3 Tables 6.1 and 6.2. JAF Tower airspace is Class D airspace and does not have suitable approaches to comply with flight under

Instrument Meteorological Conditions (IMC). Therefore it is a Visual Flight Rules (VFR) only field, and requires both 3 miles visibility and that the aircraft remain 500 feet below clouds, 1,000 feet above clouds, and 2,000 feet clear of clouds horizontally. Although JAF Tower operates under ICAO Airspace rules, the Tower controllers may refer to FAA weather minimums (listed above) when determining whether the airfield is following VFR. The weather at JAF during the MS was VMC under both criteria. The forecast weather at JAF during the MS was greater than these minimums (Tab F-2).

8. "Hard crews" are a type of crew assignment commonly used in a deployed environment where a pilot, copilot, and two loadmasters are assigned to fly each mission together. This increases crew cohesion and decreases the complexity of determining crew rest requirements for each individual. As a result, the entire crew can be scheduled as a unit.

9. Zulu time is another term for Greenwich Mean Time (GMT). Local time in Afghanistan is Zulu plus 4 hours and 30 minutes. Each local time referenced in the AIB report was converted from the Zulu time by adding 4 hours and 30 minutes. The Digital Flight Data Recorder (DFDR) time is provided in seconds starting from the earliest time the DFDR recorded, which would be DFDR time 0000. The DFDR time was correlated to the CVR time by matching the MCP's "And hack" statement, which indicates the beginning of the time hack utilized in AMAX procedures, with the initial movement of the aircraft on the runway, indicating takeoff roll. This synced the CVR playback time, transcript time, and DFDR times and provided a reference to convert each time to local time for ease of reading and clarity. For instance, the DFDR time for the elevator movement associated with the placement of the NVG case forward of the control yoke was 5075. This movement occurred simultaneously with the MP stating that the NVG case was holding the elevator at CVR playback time 01:13:59. Using the reference time established by the time hack associated with takeoff roll, both of these times were correlated and confirmed to occur simultaneously. This was then converted to local time for the report. In the course of this time conversion, there was a discrepancy noted between the CVR and JAF Tower transcript times. This was not considered significant by the AIB and for clarity during the report, aircraft CVR times were used. Additionally, there was a difference between the land time as stated by the MP as 2315L (Tab N-3 to N-4), the mission itinerary as 2315L (Tab K-4), and our own calculations from the DFDR of 2313L. Since the AIB's calculations matched the calculations in Tab J-11, we applied the AIB calculations throughout the report to maintain consistency. The discrepancy can be explained by the difference in the actual land time as seen in the DFDR versus the time recorded, which is likely to be rounded or delayed due to entry error. See Tab CC-57 to CC-58 for a detailed time conversion during the mishap sortie.

10. The information provided by the HUD, combined with the ACAWS, allowed aircrews to maintain their visual scan external to the aircraft with only occasional crosschecks of the HDD to monitor aircraft systems.

11. A normal takeoff is performed when the aircrew determines through their calculations that the takeoff runway available exceeds the calculated Critical Field Length (CFL). The required CFL is affected by aircraft weight, current temperatures, pressure altitude, winds, runway condition, runway surface type, aircraft performance, and aircraft braking/reversing effectiveness. If the takeoff runway available is less than CFL aircrews can utilize Adjusted

Maximum Effort (AMAX) procedures to accomplish a takeoff. These procedures reduce the safety margins and require that the aircraft lifts off closer to stall speeds, but still at a safe flying speed. The runway required to accomplish an AMAX takeoff is the Adjusted Minimum Field Length for Maximum Effort Takeoff (AMFLMETO). By definition, AMFLMETO is always less than CFL and allows aircrews to takeoff from runways upon which they otherwise may not be able to operate.

12. The AIB determined the MP took control of the MA at approximately 00:15:59L, prior to the MP's statement that he took control. The AIB determined the MP took control of the MA sooner than when he first stated, "Pilot's controls" at 00:16:05L. At 00:15:59L, the MP states "Here, go emergency" to the MCP. This indicates that the MP has taken the flight controls from the MCP and is directing the MCP to switch to emergency trim. The MP repeats "Go emergency" one second later, still directing the MCP and reinforcing this assessment. The MCP responds "Emergency" at 00:16:02L, confirming that he has placed the emergency trim switch in the emergency position. The MP assertively states "Hey! Go emergency, pilot's controls" at 00:16:05L, presumably because he has not felt a change in the "feel" of the controls and assumes the MCP has not placed the switch into the emergency position. However, at this time, the AIB determined the MP had been the pilot flying for approximately six seconds.

13. The AIB also determined the MA rolling to the right was consistent with the MP attempting to maintain controlled flight. Recovery from an unusual attitude is taught in basic pilot training and the basics remain the same in most aircraft the student will go on to fly. In the event of a nose-high unusual attitude, the student is taught to lower the nose to regain airspeed and maintain maximum power to prevent a stall. In order to lower the nose, the pilot may also roll the aircraft to the nearest horizon in an attempt to get the nose of the aircraft to track down more rapidly. The inputs seen in the DFDR data, and as noted at Tab J-18, were consistent with the MP attempting to roll to the nearest horizon to prevent the aircraft from entering into a stall.

14. During the AIB's simulations at Little Rock AFB, in addition to the conditions previously noted in the memorandum at Tab CC-9, I dimmed the flight deck lighting to replicate nighttime operations.

15. There is no display in the C-130J flight deck that indicates the actual elevator position. A pilot relies on the attitude of the aircraft to gauge whether he should raise or lower the elevator. While the DFDR for the MS indicated that the data readout from the elevator was unreliable (Tab J), neither the MP nor the MCP would have been aware of the technical problem.

16. The AIB created the images found at Tab Z-14 by inserting a silhouette of a C-130J into a power point presentation. Once inserted, the rotation angle of each image was set to match the desired pitch angle based on the DFDR and the chart at Tab L-4. The images are intended to be solely a demonstrative aide and were not relied on to form any AIB calculations or conclusions.

SIGNED

AIB/PM                      Capt, USAF  
Pilot Member, Accident Investigation Board

### CC13. AIB TIME CONVERSION CHART

Event	DFDR Time	CVR Time
Brake Release (8044.75) (Tab J-13)	8045	00:15:24 (00:15:23.75) (Tab J-13)
	8046	00:15:25
	8047	00:15:26
	8048	00:15:27
	8049	00:15:28
	8050	00:15:29
	8051	00:15:30
	8052	00:15:31
	8053	00:15:32
	8054	00:15:33
	8055	00:15:34
	8056	00:15:35
	8057	00:15:36
	8058	00:15:37
	8059	00:15:38
	8060	00:15:39
	8061	00:15:40
	8062	00:15:41
	8063	00:15:42
	8064	00:15:43
	8065	00:15:44
	8066	00:15:45
Rotation (8067.5) (Tab J-13)	8067	00:15:46
	8068	00:15:47
	8069	00:15:48
	8070	00:15:49
Liftoff (8071.5) (Tab J-13); MP "Rotate" (Tab N-17)	8071	00:15:50
	8072	00:15:51
MP "You're a little early" (Tab N-17)	8073	00:15:52
	8074	00:15:53
MCP "It's going off on its own" (Tab N-17)	8075	00:15:54
	8076	00:15:55
MCP aware of problem ("Ahh...") (Tab N-17)	8077	00:15:56
Nose-down trim applied (L-6)	8078	00:15:57
MCP "Trim failure" (Tab N-17)	8079	00:15:58
MP "Here, go emergency" (Tab N-17)	8080	00:15:59
	8081	00:16:00
ACAWS "Stall" (Tab N-17)	8082	00:16:01
Actual Stall (8083.5) (Tab J-18); Stick Pusher Activated (Tab J-18)	8083	00:16:02
ACAWS "Stall" (Tab N-17)	8084	00:16:03
	8085	00:16:04
MP "Pilot's controls" (Tab N-18)	8086	00:16:05

	8087	00:16:06
Maximum pitch (8087.5) (Tab J-21) ACAWS "Stall, stall" (Tab N-18)	8088	00:16:07
	8089	00:16:08
MP "Pilot's controls" (Tab N-18)	8090	00:16:09
MP "Pilot's controls" (Tab N-18)	8091	00:16:10
	8092	00:16:11
	8093	00:16:12
	8094	00:16:13
ML2 "What's going on" (Tab N-18)	8095	00:16:14
MP "We're going down" (Tab N-18)	8096	00:16:15
MP "We're going down" (Tab N-18)	8097	00:16:16
MP "We're going down" (Tab N-18)	8098	00:16:17
Last Data Entry (8098.875) (J-22)	8099 (rounded)	00:16:18 (rounded)

# CC14. REVIEW OF MAINTENANCE, 9 FEBRUARY 2016



## DEPARTMENT OF THE AIR FORCE ACCIDENT INVESTIGATION BOARD SCOTT AIR FORCE BASE, ILLINOIS

9 February 2016

### MEMORANDUM FOR RECORD

FROM: Accident Investigation Board (AIB)

SUBJECT: Review of Maintenance

1. This memorandum serves as a supplement to my memorandum, located at Tab CC-13 to CC-14.

The 317th Aircraft Maintenance Squadron (317 AMXS), Dyess AFB, maintained the MA's forms while in the US, and the 774th Expeditionary Aircraft Maintenance Squadron (774 EAMXS), BAF, Afghanistan, maintained the MA's forms while deployed. To track and store aircraft maintenance records, USAF Maintenance units primarily utilize the Integrated Maintenance Data System (IMDS). However, for Mobility Air Force aircraft, such as the C-130, the system is called the G081 maintenance information system. For the purposes of this report, all references made to IMDS shall be considered G081. For the MA, the Plans, Scheduling, and Documentation section of the 317 AMXS and 774 EAMXS tracked the MA's inspections.

Hydraulic system operations were tracked and recorded on the DFDR and no hydraulic ACAWS notifications occurred. I conducted a thorough review of the DFDR for the MS, and no hydraulic ACAWS notifications occurred.

SIGNED

AIB/MX

Lt Col, USAF

Maintenance Member, Accident Investigation Board

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**FACT SHEETS**

DD1. AIR MOBILITY COMMAND FACT SHEET, 11 AUGUST 2006 ..... DD-3

DD2. 18TH AIR FORCE FACT SHEET, 21 OCTOBER 2014 ..... DD-5

DD3. 317TH AIRLIFT GROUP FACT SHEET, 30 JANUARY 2008 ..... DD-9

DD4. 39TH AIRLIFT SQUADRON FACT SHEET, 30 NOVEMBER 2015 ..... DD-11

DD5. 609TH AIR OPERATIONS CENTER FACT SHEET, 3 DECEMBER 2015 ..... DD-12

DD5. 455TH AIR EXPEDITIONARY WING FACT SHEET, 28 MAY 2015 ..... DD-13

DD6. 774TH EXPEDITIONARY AIRLIFT SQUADRON MEMORANDUM FOR RECORD,  
7 DECEMBER 2015 ..... DD-15

DD7. C-130J HERCULES FACT SHEET, 1 SEPTEMBER 2003 ..... DD-17

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# DD1. AIR MOBILITY COMMAND FACT SHEET, 11 AUGUST 2006

Air Mobility Command > U.S. Air Force > Fact Sheet Display

Page 1 of 2



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## Air Mobility Command

Published August 11, 2005



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Air Mobility Command fact sheet banner. (U.S. Air Force graphic by Andy Yacenda, Defense Media Activity-San Antonio)

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**Air Mobility Command, a major command with headquarters at Scott Air Force Base, Ill., was created June 1, 1992. AMC provides America's Global Reach. This rapid, flexible and responsive air mobility promotes stability in regions by keeping America's capability and character highly visible.**

### Mission

Air Mobility Command's is to provide global air mobility ... right effects, right place, right time. The command also plays a crucial role in providing humanitarian support at home and around the world. AMC Airmen – active duty, Air National Guard, Air Force Reserve and civilians – provide airlift and aerial refueling for all of America's armed forces. Many special duty and operational support aircraft and stateside aeromedical evacuation missions are also assigned to AMC.

U.S. forces must be able to provide a rapid, tailored response with a capability to intervene against a well-equipped foe, hit hard and terminate quickly. Rapid global mobility lies at the heart of U.S. strategy in this environment, without the capability to project forces, there is no conventional deterrent. As U.S. forces stationed overseas continue to decline, global interests remain, making the unique capabilities only AMC can provide even more in demand.

### Global Reach Capabilities

As the air component of the U.S. Transportation Command, AMC serves many customers and, as the single manager for air mobility, AMC's customers have only one number to call for Global Reach.

Airlifters provide the capability to deploy our armed forces anywhere in the world and help sustain them in a conflict. Air refuelers are the lifeline of Global Reach, increasing range, payloads and flexibility. Since Air Force tankers can also refuel Navy, Marine and many allied aircraft, they leverage all service capabilities on land, sea and in the air. Refuelers also have an inherent cargo-carrying capability, maximizing AMC's lift options.

### Personnel

AMC has nearly 136,000 active-duty and Air Reserve Component military and civilian personnel.

### Resources

AMC's mobility aircraft include the C-5 Galaxy, KC-10 Extender, C-17 Globemaster III, C-130 Hercules and KC-135 Stratotanker. Operational support aircraft are the VC-25 (Air Force One), C-9, C-20, C-21, C-32, C-37, C-40 and UH-1.

### Organization

AMC has one numbered air force, the 18th Air Force, with headquarters at Scott AFB, is charged with tasking and executing all air mobility missions. Units reporting to 18th Air Force include all AMC wings and groups based in the continental United States, as well as two expeditionary mobility task forces, the 15th EMTF at Travis AFB, Calif. and the 21st EMTF at McGuire AFB, N.J. The 15th and 21st EMTFs serve as lead agencies for conducting mobility operations worldwide. They are key to the execution phase of war fighting by providing worldwide expeditionary mobility support.

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C-130J, T/N 08-3174, 2 October 2015

DD-3

The 618th Tanker Airlift Control Center, located at Scott AFB, also reports to 18th Air Force and serves as the organization's air operations hub, planning and directing tanker and transport aircraft operations around the world.

AMC's active-duty bases are: Charleston AFB, S.C.; Dover AFB, Del.; Fairchild AFB, Wash.; Grand Forks AFB, N.D.; Little Rock AFB, Ark.; MacDill AFB, Fla.; McChord AFB, Wash.; McConnell AFB, Kan.; McGuire AFB; Pope AFB, N.C.; Scott AFB; and Travis AFB. In addition, the 89th Airlift Wing at Andrews AFB, Md.; the 19th Air Refueling Group at Robins AFB, Ga.; and the 317th Airlift Group at Dyess AFB, Texas, are assigned to AMC.

AMC also has one major direct reporting unit, the USAF Expeditionary Center located at Fort Dix, N.J., which serves as the Air Force's premier organization for expeditionary innovation, education, training and exercises.

**History**

A new era in air power history began on June 1, 1992 when the Military Airlift Command and the Strategic Air Command were inactivated and Air Mobility Command formed from elements of these two organizations. AMC melded a worldwide airlift system with a tanker force that had been freed from its commitments by the collapse of the Soviet Union.

AMC has undergone considerable change since its establishment. Focusing on the core mission of strategic air mobility, the command divested itself of infrastructure and forces not directly related to Global Reach. The Air Rescue Service, intratheater aeromedical airlift forces based overseas and much of the operational support airlift fleet were transferred to other commands. However, KC-10 and most KC-135 air refueling aircraft initially assigned to Air Combat Command were transferred to AMC, along with Grand Forks AFB, McConnell AFB and Fairchild AFB.

On Oct. 1, 2003, AMC underwent a major restructuring, bringing a warfighting role to its numbered air force. AMC reactivated the 18th AF and redesignated its two former numbered air forces as the 15th EMTF, with headquarters at Travis AFB, and the 21st EMTF, with headquarters at McGuire AFB.

AMC's ability to provide global reach is tested daily. From providing fuel, supplies and aeromedical support to troops on the frontline of the Global War on Terrorism, to providing humanitarian supplies to hurricane, flood, and earthquake victims both at home and abroad, AMC has been engaged in almost nonstop operations since its inception. Command tankers and airlifters have supported peacekeeping and humanitarian efforts in Afghanistan, Bosnia, Iraq, Cambodia, Somalia, Rwanda and Haiti, and continue to play a vital role in the ongoing Global War on Terrorism. These many examples of the effective application of non-lethal air power indicate that air mobility is a national asset of growing importance for responding to emergencies and protecting national interests around the globe.

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# DD2. 18TH AIR FORCE FACT SHEET, 21 OCTOBER 2014

Factsheets : 18th Air Force Fact Sheet

Page 1 of 3

## 18th Air Force



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## 18TH AIR FORCE FACT SHEET

Posted 10/21/2014  
Printable Fact Sheet  
EIGHTEENTH AIR FORCE

The Eighteenth Air Force (18 AF), headquartered at Scott Air Force Base, Ill., was first activated on March 28, 1951 to execute Tactical Air Command's troop carrier responsibilities and became operational as the 18th Air Force on June 26, 1951. Based on budgetary limitations, it was formally inactivated on Jan. 1, 1958 and its forces were reassigned to the 12th Air Force. It was reactivated Oct. 1, 2003, as the operational component of Air Mobility Command (AMC). It is AMC's only Numbered Air Force (NAF) and the Air Force's largest NAF.

### Mission

Airmen delivering innovative Rapid Global Mobility solutions through operational expertise and capabilities.  
18th Air Force – America's Rapid Global Mobility Leaders!

18 AF presents air mobility forces to combatant commanders. It is charged with carrying out AMC's operational role as Air Forces Transportation (AFTRANS), the air component of U.S. Transportation Command, also headquartered at Scott AFB, Ill.

### Vision

Inspired by a bold heritage, Mobility Airmen united by a culture of agile and sustainable operational excellence.

### Resources

18 AF's mobility aircraft, totaling more than 1,000, include the C-5 Galaxy, KC-10 Extender, C-17 Globemaster III, C-130 Hercules, and KC-135 Stratotanker. Operational Support Airlift aircraft include the VC-25 (Air Force One), C-21, C-20, C-32, C-37, and C-40.

### Personnel

18 AF has an assigned Active, Reserve, Guard and civilian workforce of more than 37,000 people.

### Organization

18 AF, commanded by a three-star general, is charged with executing air mobility missions worldwide. Active-duty units reporting to the 18 AF include the following:

Joint Base Andrews, Md. - 89th Airlift Wing  
Joint Base Charleston, S.C. - 437th Airlift Wing  
Dover AFB, Del. - 436th Airlift Wing  
Dyess AFB, Texas - 317th Airlift Group  
Fairchild AFB, Wash. - 92nd Air Refueling Wing  
Joint Base Lewis-McChord, Wash. - 62nd Airlift Wing  
Joint Base McGuire-Dix-Lakehurst, N.J. - 305th Air Mobility Wing  
Wing Little Rock AFB, Ark. - 19th Airlift Wing  
MacDill AFB, Fla. - 6th Air Mobility Wing  
McConnell AFB, Kan. - 22nd Air Refueling Wing  
Scott AFB, Ill. - 375th Air Mobility Wing  
Tanker Airlift Control Center (618th Air and Space Operations Center) Travis AFB, Calif. - 60th Air Mobility Wing  
Al Udeid Air Base - 385th Air Expeditionary Group  
The Tanker Airlift Control Center (TACC) serves as AFTRANS' air operations hub, planning and directing tanker and transport aircraft operations around the world.

### History (1951 - 1958)

Organized on March 28, 1951, at Donaldson AFB in Greenville, S.C., and assigned to Tactical Air Command (TAC), the primary mission of the 18 AF (Troop Carrier), was the training of troop carrier crews. Immediately after activation, it began to provide trained crews and other personnel in support of the Korean War.

Redesignated as 18 AF on June 26, 1951, the command quickly became involved with numerous activities including troop movements in the continental United States, Distant Early Warning (DEW) radar operations in numerous allied nations, and support of U.S. scientific efforts at the South Pole in Antarctica.

18 AF was initially made up of nine medium C-119 "Flying Boxcar" troop carrier wings based in the continental United States. Seven of the wings belonged to the Air Force Reserve and were activated for the Korean War. Two heavy wings flying the C-124 "Globemaster II" were added in late 1951 and early 1953.

In the Spring of 1952, C-124s belonging to 18 AF were sent to Japan to fly missions in support of the Korean War. As the Korean War wound down, command C-119s were sent to Indochina to support French military operations out of Tourane Air Base in what is now the Socialist Republic of Vietnam.

By early 1953, the Reserve wings were replaced by active duty wings. 18 AF organized, administered, trained, and prepared its assigned troop carrier units for combat, and augmented troop carrier forces in the Far East and Europe.

In 1954, 18 AF C-119s airdropped supplies to the besieged French paratroops at Dien Bien Phu, Indochina, and later airlifted wounded French soldiers to Japan. Due to diplomatic concerns, these missions were primarily flown by civilian crews.

During this time, 18 AF continued to provide troop carrier aircraft and crews in support of joint operations and training (to include airborne paratroop training), worked to improve communications and medical evacuation capabilities, and provided airlift to other Major Commands and TAC organizations. However, the advent of the jet age caused an evolution in TAC's mission, with a resulting focus on the rapid deployment of heavily armed fighter/bomber units and Army airborne/flight infantry units to world "trouble spots" as part of the Nation's strategy to 'contain' the Soviet Union.

In support of this new focus, TAC added C-123 "Provider" and C-130 "Hercules" aircraft and used them alongside Military Air Transport Service's strategic airlift capability to rapidly deploy and resupply forces around the world as part of what was known as the "Composite Air Strike Force."

18 AF was heavily committed to the installation of DEW radars along the Arctic Circle from 1955-1957 as well as to Operation Deep Freeze I and II at the South Pole from 1956 to 1957 including the first parachute jump at the South Pole in November 1956.

The command was also instrumental in developing the aerial port concept, including techniques and equipment supporting air land loading and airdrop operations, the Air Force "Pathfinder" combat controller capability (which established drop zone experts), and assault landing procedures for C-123 and C-130 aircraft.

A realignment of troop carrier forces in 1957 transferred the C-124s from 18 AF to the Military Air Transport Service, and the 18 AF headquarters was moved from Donaldson AFB to Connally AFB, Waco, Texas on Sept. 1, 1957. At Connally AFB, 18 AF gained responsibility for TAC's day-to-day fighter, fighter-bomber, and aerial tanker operations in the western United States.

On Jan. 1, 1958 18 AF was formally inactivated and its forces were reassigned to the 12th Air Force.

During this period, 18 AF was responsible for a total of four Air Divisions and 16 wings while headquartered at Donaldson AFB and

### Inside 18AF

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seven wings while headquartered at Connally AFB. Additionally, the command had the following aircraft

assigned: B-26 Invader  
 B-45 Tornado  
 B-57 Canberra  
 C-45 Expeditor  
 C-46 Commando  
 C-47 Skytrain  
 C-54 Skymaster  
 C-82 Packet  
 C-110 Flying Boxcar  
 C-123 Provider  
 C-124 Globemaster II  
 C-130 Hercules  
 F-84 Thunderjet  
 F-86 Sabre  
 F-100 Super Sabre  
 F-101 Voodoo  
 KB-50 Superfortress (Tanker)  
 KC-29 Superfortress (Tanker)  
 YC-122 Avituc

#### History (2003 - Present)

18 AF was reactivated on Oct. 1, 2003 at Scott AFB, Belleville, Ill., as part of a broader Air Mobility Command reorganization to enhance mobility support to Combatant Commanders. The reactivation focused global mobility operational warfighting and force presentation through a single active duty Numbered Air Force - currently the Air Force's largest NAF.

The reactivated command included two Expeditionary Mobility Task Forces (EMTFs): the 15th EMTF at Travis AFB, Calif. and the 21st EMTF at McGuire AFB, N.J. Both EMTFs were led by Brigadier Generals and provided command over the east and west global mobility enterprises to include the command's fixed, enroute and contingency response forces. Each EMTF included an Air Mobility Operations Wing (AMOW) leading the fixed enroute forces and a Contingency Response Wing (CRW) commanding the contingency response forces that provided "bare base" opening capabilities in support of global joint forces.

In January 2011, the Air Base Wings at Joint Base Charleston, S.C.; Joint Base McGuire-Dix-Lakehurst, N.J.; Grand Forks Air Force Base, N.D.; the Air Base Group at Joint Base Lewis-McChord, Wash.; and the 43rd Airlift Group at Pope Field, N.C., were realigned under the administrative command of the U.S. Air Force Expeditionary Center (USAF EC) at JB McGuire-Dix-Lakehurst, N.J. A little more than a year later, in March 2012, the EMTFs, AMOWs and CRWs were also administratively realigned under the USAF EC and the 615th CRW at Travis was inactivated. Forces under the command of the 615th CRW were realigned under the 621st CRW. These actions were designed to better enable 18 AF to focus on its core competency of presentation of operational flying forces to the Combatant Commanders and to further streamline air mobility operations.

Following the March 2012 restructuring, 18 AF is comprised of 11 Wings, two Groups (an airlift group at Dyess AFB, Texas, and Air Expeditionary Group in Southwest Asia), and the TACC.

Aircraft assigned to 18th Air Force since 2003

include: C-5A/B/C/M

C-17A  
 C-20B  
 C-21A  
 C-32A  
 C-37A/B  
 C-40B  
 C-130E/H/J  
 VC-9C  
 VC-25A  
 UH-1N  
 KC-10A  
 KC-135 A/R/T

RT

As they have throughout the command's history, the people and aircraft of 18 AF continue to work hard to deliver the promise of global reach for America.

#### Commanders

During the 1951 to 1958 period, 18 AF had three commanders: Col. Earl B. Young (March - May 1951)  
 Maj. Gen. Robert W. Douglass, Jr. (May 1951 - November 1954)  
 Maj. Gen. Chester E. McCarty (November 1954 - January 1958) Since reactivation in 2003, its commanders have included: Maj. Gen. Paul W. Essex (October 2003 - December 2003)  
 Lt. Gen. William Welser III (December 2003 - November 2005)  
 Maj. Gen. James A. Hawkins (November 2005 - June 2008)  
 Maj. Gen. Winfield W. Scott III (June 2008 - August 2009)  
 Lt. Gen. Robert R. Allardice (August 2009 - September 2011)  
 Lt. Gen. Mark F. Ramsay (September 2011 - August 2012)  
 Lt. Gen. Darren W. McDew (August 2012 - April 2014)  
 Maj. Gen. Barbara J. Faulkenberry (April 2014 - June 2014)  
 Lt. Gen. Gordon D. Everhart II (June 2014 - Present)



The 18 AF Emblem was designed in accordance with Air Force Regulation 900-7 (dated July 27, 1950) at Donaldson AFB and approved by the Air Staff on July 19, 1951.

The significance of the design is as follows: ultramarine blue and Air Force yellow are the Air Force colors. Blue alludes to the sky, the primary theater of Air Force operations. Yellow refers to the sun and the excellence of Air Force personnel. The chevron and wings are ancient military symbols of strength and protection. The parachutes, representative of equipment used by the Eighteenth Air Force in carrying out its mission with speed, safety, and success, are suitable symbols for the organization. The motto

"Expedite" (With Dispatch) expresses the meaning of successfully accomplishing all duties performed.

Heraldic Device



The 18 AF Heraldic Device is made up of a globe representing the command's global area of operations. It is defended by spires which proudly recount the command's operations, aircraft, units, and commanders that have led the command to success. The device is also honored in the following poem:

*Around this crystal globe  
 18th Air Force unit spires, past and present, stand  
 Comprised today of 37,000 airmen serving in the air, and on land  
 Somewhere a need will arise  
 Then, a request for hope  
 And off we go to help them cope  
 We fuel the fight  
 We save lives  
 Our global mobility enterprise, thrives  
 We span the world  
 Our airman stand tall  
 18th Air Force is there when our nation calls*

(Current as of October 2014)

Point of Contact

18th Air Force Public Affairs; 709 Ward Dr., Ste 248, Scott AFB, L 62225-5000, DSN 779-0483 or (618) 229-0483.

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# DD3. 317TH AIRLIFT GROUP FACT SHEET, 30 JANUARY 2008

Factsheets : 317th Airlift Group

Page 1 of 2

**Dyess Air Force Base**



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## 317TH AIRLIFT GROUP

Posted 1/30/2008 [Printable Fact Sheet](#)

The 317th Airlift Group is comprised of the 39th and 40th Airlift Squadrons, 317th Aircraft Maintenance Squadron, 317th Maintenance Squadron, 317th Operations Support Squadron and the 317th Maintenance Operations Squadron. The group comes under the operational control of 18th Air Force and Air Mobility Command, Scott Air Force Base, IL.

For over 65 years, the 317th Airlift Group has championed the cause for tactical airlift, bringing to bear on a hundred nations the compassion and resolve of America and her allies.

The group's humble beginning occurred on February 22, 1942 at Duncan Field near San Antonio, Texas. Eighteen enlisted men and one Captain formed the entire unit. However it wouldn't be long before the 317th tenant squadrons would acquire the venerable Douglas C-47 Skymaster and the familiar drone of rotating props would become forever synonymous with the 317th.

In July of 1942, the Army redesignated the unit the 317th Troop Carrier Group. After receiving several months of training in and around the southern United States, the group had grown into a viable component of America's defense machine. In December of that same year, they departed for Australia in support of World War II.

The Army Air Corp quickly stripped the 317th of their new C-47s upon arrival, and in turn gave them the battered aircraft of the veteran 347th Troop Carrier Group. With an assortment of damaged C-47s, C-60s, and cargo versions of the B-17, the 317th set about their mission.

As the Japanese pounded the airdrome at Wau, New Guinea, the 317th endured monsoon conditions, flying low level supply drops to the Australian Army engaged on the airfield in hand-to-hand combat. The mission cost the 317th three aircraft and several men, and for their actions they received their first Distinguished Unit Citation (DUC).

Spear heading a combined airborne-glider offense in June 1945, the 317th released allied elements over northern Luzon (Philippines). Enemy anti-aircraft fire was intense, forcing the group to make repeated passes over the drop zone. Soon the Japanese forces were weakened to the point of defeat. And once again the 317th was awarded the DUC for their outstanding performance.

In 1945 with the war finally at an end, the 317th participated in one of the most widely known humanitarian efforts in history, the Berlin Airlift. From May through July the group air-dropped food supplies to the citizens of the Soviet blockaded city. Once the blockade had been lifted and their mission was complete, the 317th inactivated at Rhein Main Air Base, Germany in September.

In July of 1952, the Air Force reactivated the 317th at Rhein Main as the 317th Troop Carrier Wing. It became the first Air Force unit assigned to the North Atlantic Treaty Organization (NATO). Now flying C-119 "Boxcars", the 317th relocated to Neubiberg Air Base near Munich in 1953. Shortly after their arrival at the Bavarian base, newer C-123 transports arrived to complement the C-119s.

The 317th continued to fly many humanitarian missions and support NATO airborne units throughout Europe. They airlifted life rafts, tents, and emergency food supplies to flood victims in the Netherlands, and aided thousands of earthquake victims in Italy, Greece, Pakistan and Yugoslavia among many others.

In October of 1957 the 317th moved to Evreux Field, France, sixty miles northeast of Paris. There they consolidated with another C-119 unit from Druxey Air Base, France in preparation for the transition to the new turboprop equipped C-130 Hercules.

Several operations kept the 317th occupied in the Middle East throughout the late 1950's. However in 1960, in the midst of a civil war in the Belgian Congo, the 317th flew several peace keeping contingents into some of the world's most primitive airfields. Congolese rebels often fired upon the C-130s from the dense jungle further complicating each mission. Before the blood letting had ended, the 317th had airlifted a large portion of the 20,000 peace keepers used.

Having returned to America after more than 20 years abroad, the 317th became Tactical Air Command's C-130 operations representative. They provided most of the training to the "C-130 world."

In June of 1964, the 317th made the move to Lockbourne AFB, Ohio. Between 1965 and 1971, they provided vital support operations in training and deployment during the Vietnam conflict. They also developed and perfected the use of the Adverse Weather Delivery System (AWADS) becoming the Air Force's pioneer group behind this method of cargo delivery.

In May 1967 the unit became the 317th Tactical Airlift Wing and not long after in 1971, was reassigned to Pope AFB, North Carolina. In that year they provided emergency food and equipment to flood victims in Virginia, and Pennsylvania.

In 1983, 317th C-130s led the airborne assault during the U.S. invasion of Grenada dropping Army rangers sent to rescue seven hundred American students threatened by communist forces on the island. Six years later in 1989, the 317th again led the way in Operation Just Cause, the U.S. invasion of Panama.

In 1990 they showcased their abilities by deploying elements of the XVIII Airborne Corps to Saudi Arabia during the first days of Desert Shield. The 317th became the first tactical airlift unit from the states to deploy. Early in 1992 during the final days of Desert Storm, the 317th airlifted U.S. and allied combat troops deep inside Iraq territory. This was in support of General Norman Schwarzkopf's "Hail Mary" flanking maneuver that led to the surrender of Iraq's elite Republican Guard.

Early in 1992 the 317th reorganized under the Air Forces Composite Wing structure. The unit transferred all of its combat support personnel and equipment to Pope's 23rd Wing.

Shortly after the restructuring, the 317th provided the initial U.S. relief to the war torn nation of Bosnia. They air-dropped food supplies while under enemy fire, in harsh weather conditions over rocky terrain where non-combatative civilians could find them.

As the Air Force continued to streamline its operations, the 317th was inactivated at Pope AFB in July of 1993.

Four years after the inactivation, in April of 1997, a transfer of all U.S. based C-130 aircraft to Air Mobility Command (AMC) resulted in the reactivation of the 317th. Now known as the 317th Airlift Group, the unit operates out of Dyess AFB, Texas as a tenant unit to the 7th Bomb Wing, Air Combat Command (ACC).

Since Dec 2003, the 317th has been in a continuously deployed status in support of Operations Iraqi Freedom and Enduring Freedom, as well as other contingencies around the world.

Today, the men and women of the 317th are proudly carrying on the tradition of professionalism and personal sacrifice into the next century.

### Point of Contact

7th Bomb Wing Public Affairs, 7 Lancer Loop, Dyess AFB, TX 79607-1960; Commercial: 325-696-2863, DSN: 461-2863; 7bw.pa@dyess.af.mil.

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# DD4. 39TH AIRLIFT SQUADRON FACT SHEET, 30 NOVEMBER 2015

Dyess Air Force Base - 317th Airlift Group

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## Dyess Air Force Base



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### 317th Airlift Group



The 317th Airlift Group is comprised of the 39th and 40th Airlift Squadrons, 317th Aircraft Maintenance Squadron, 317th Maintenance Squadron and the 317th Operations Support Squadron. The group comes under the operational control of 18th Air Force and Air Mobility Command, Scott Air Force Base, IL.

[Click here to view information on the 317th Airlift Group heritage from 1942 - Present.](#)

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317th Airlift Group Mission Video

### FLEET COMPLETE



#### 317th Maintenance Squadron

The 317th Maintenance Squadron support the nation's warfighting capability by performing on- and off-equipment maintenance on 28 assigned C-130Js, valued at \$1.5 billion, accomplishing global reach missions under the auspices of the 317 AG, 18th Air Force, and Air Mobility Command. Personnel spanning nine Air Force specialties, provide all aspects of flightline maintenance and are responsible for the health of their aircraft. Together they support the mission, "From the Ground Up".

#### 39th Airlift Squadron

The 39th Airlift Squadron maintains quality aircrew and aircraft to mobilize, deploy and provide intratheater airlift worldwide for Department of Defense customers. The men and women of the 39 AS support theater commanders' requirements with combat-delivery capability through tactical airdrop and airdrop operations as well as humanitarian efforts and aeromedical evacuation. The squadron provides approximately 30 aircrew for 14 assigned aircraft.

#### 40th Airlift Squadron

The mission of the 40th Airlift Squadron is to maintain quality aircrew and aircraft to mobilize, deploy and provide intratheater airlift worldwide for Department of Defense customers. The men and women of the 40 AS support theater commanders' requirements with combat-delivery capability through tactical airdrop and airdrop operations as well as humanitarian efforts and aeromedical evacuation. The 40 AS maintains approximately 30 aircrews.

#### 317th Aircraft Maintenance Squadron

The 317th Aircraft Maintenance Squadron support the nation's war-fighting capability by performing flightline maintenance on 28 assigned C-130Js, valued at \$1.5 billion, accomplishing global reach missions under the auspices of the 317 AG, 18th Air Force, and Air Mobility Command. Personnel spanning nine Air Force specialties, provide all aspects of flightline maintenance and are responsible for the health of their aircraft. Together they support the mission, "From the Ground Up".

#### 317th Operations Support Squadron

The 317th Operations Support Squadron is responsible for C-130J combat effectiveness. The squadron directs flight operations, war plans, aircrew/aircraft scheduling, combat tactics, aircrew training, cargo delivery, deployment planning and execution, simulator training, mobility processing, maintenance analysis and aircrew flight equipment functions. The 317 OSS coordinates with the host wing for airfield management, weather support and air traffic control.

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C-130J, T/N 08-3174, 2 October 2015

DD-11

# DD5. 609TH AIR OPERATIONS CENTER FACT SHEET, 3 DECEMBER 2015

Air Force Historical Research Agency - Fact Sheet (Printable) : 609 AIR OPERATIONS ... Page 1 of 1



## FACT SHEET

### U.S. Air Force Fact Sheet 609 AIR OPERATIONS CENTER (ACC)

**Lineage.** Established as 609 Air Operations Group, and activated, on 1 Jan 1994. Redesignated as 609 Air and Space Operations Center on 1 Mar 2008; 609 Air Operations Center on 1 Dec 2014..

**Assignments.** Ninth Air Force (later, Ninth Air Force [Air Forces Central]; later, United States Air Forces Central Command), 1 Jan 1994-.

**Stations.** Shaw AFB, SC, 1 Jan 1994; Al Udeid AB, Qatar, 1 Mar 2008-.

**Service Streamers.** None.

**Campaign Streamers.** Global War on Terrorism.

**Armed Forces Expeditionary Streamers.** None.

**Decorations.** Meritorious Unit Award: 1 Jun 2012-31 May 2013. Air Force Outstanding Unit Awards: 1 Jul 1996-31 Mar 1998; 1 Jun 1998-31 May 2000; 1 Jun 2000-31 May 2002; 1 Jun 2003-31 May 2004; 1 Jun 2004-31 May 2006; 1 Jun 2006-31 May 2007; 1 Jun 2007-31 May 2008.

**Lineage, Assignments, Stations, and Honors through 14 Jul 2015.**

**Supersedes** statement prepared on 17 Apr 2015.

**Emblem.** Approved on 23 Jan 2004, modified on 29 Jan 2009.

**Prepared by**



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## DD5. 455TH AIR EXPEDITIONARY WING FACT SHEET, 28 MAY 2015

455th Air Expeditionary Wing fact sheet > U.S. Air Forces Central Command > Display Page 1 of 2



[Home](#) > [Units](#) > [455th Air Expeditionary Wing](#) > [Fact Sheet](#) > [Display](#)

### 455th Air Expeditionary Wing fact sheet

Published May 28, 2015



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455th Air Expeditionary Wing shield



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#### MISSION

The 455th Air Expeditionary Wing is comprised of more than 1,600 Airmen located at Bagram, Jalalabad, and Kandahar airfields. The wing consists of five groups: 455th Expeditionary Operations Group, 455th Expeditionary Mission Support Group, 455th Expeditionary Maintenance Group, 455th Expeditionary Medical Group, and the 451st Air Expeditionary Group. The wing has four priorities: 1 - Provide decisive airpower in support of the 2015 fighting season and execution of NATO's Resolute Support mission; 2 - Airmen to be able to defend themselves, where they live and where they work; 3 - Flawlessly execute Role 3 and aeromedical evacuation responsibilities in Afghanistan; 4 - Relentless care for our Airmen.

#### LOCATION

Bagram Airfield is located in Afghanistan's Parwan Province, approximately 11 kilometers (7 miles) southeast of the city of Charikar and 47 kilometers (27 miles) north of Kabul. The airfield has two runways capable of serving large and small airframes.

#### ORGANIZATION

The 455 AEW is one of two Air Force wings located within Afghanistan and provides decisive airpower throughout the country in support of Operation FREEDOM'S SENTINEL and NATO's Resolute Support mission.

**455th Expeditionary Operations Group:** The group is responsible for all expeditionary flying and aeromedical evacuation operations for the 455 AEW. The group oversees operations of one F-16 Fighting Falcon close air support squadron, one C-130 Hercules airlift squadron, one HH-60 Pave Hawk/Guardian Angel rescue squadron, one EC-130 Compass Call electronic combat squadron, and one aeromedical evacuation squadron. The group also oversees support functions such as air traffic control, intelligence, weather, radar monitoring and landing systems, airfield management and command and control equipment at multiple forward-operating bases.

**455th Expeditionary Maintenance Group:** The group provides combat-ready aircraft and munitions to the wing in support of coalition forces throughout Afghanistan. The group is comprised of two squadrons responsible for on-and-off-aircraft maintenance and sortie generation, as well as launch, recovery, and service support for military and commercial transient aircraft.

**455th Expeditionary Mission Support Group:** The group provides a wide range of services for the wing in support of coalition

<http://www.afcent.af.mil/Units/455thAirExpeditionaryWing/FactSheet/Display/tabid/336/...> 11/30/2015

forces throughout Afghanistan. The 455th EMSG is comprised of five squadrons responsible for communications, civil engineer operations, force support, logistics readiness, and security forces.

455th Expeditionary Medical Group: The group is the Air Force component of Task Force Medical-Afghanistan, providing combat medical and combat medical support services to U.S. and coalition forces throughout Afghanistan. The group supports a 24/7 Contingency Aeromedical Staging Facility (CASF) and serves as the aeromedical evacuation hub for all of Afghanistan. Along with the U.S. Army, the 455th EMDG staffs the Craig Joint Theater Hospital at Bagram.

451st Air Expeditionary Group: The group provides a persistent and powerful airpower presence in the Afghanistan area of operations. The 451st AEG Airmen provide world-class close air support, intelligence, surveillance and reconnaissance, command and control, and airborne datalink capabilities whenever and wherever needed. The group operates the E-11, MQ-1B Predator, and MQ-9 Reaper at Kandahar and Jalalabad airfields.

#### HONORS

The men and women of the 455th Air Expeditionary Wing have been recognized for their excellence since World War II.

#### Decorations

##### Distinguished Unit Citations:

Steyr, Austria, 2 Apr 1944  
Austria, 26 Jun, 1944

##### Meritorious Unit Award:

16 Sep 2003 - 30 Sep 2004  
1 Oct 2004 - 30 Sep 2005  
1 Oct 2005 - 01 Sep 2006  
1 Oct 2006 - 30 Sep 2007  
1 Oct 2007 - 30 Sep 2008  
1 Oct 2008 - 30 Sep 2009  
1 Oct 2009 - 30 Sep 2010  
1 Oct 2010 - 30 Sep 2011  
1 Oct 2011 - 30 Jun 2012  
1 Jul 2012 - 30 Jun 2013  
1 July 2013 - 30 Jun 2014

##### Air Force Outstanding Unit Award with Valor:

1 Nov 2001 - 15 Sep 2002  
16 Sep 2002 - 15 Sep 2003

##### Campaign Streamers:

World War II: Air Combat, EAME (European-African-Middle Eastern Campaign); Air Offensive, Europe; Naples-Foggia; Anzio; Rome-Arno; Normandy; Northern France; Southern France; North Apennines; Rhineland; Central Europe; Po Valley

Afghanistan: Consolidation I, Consolidation II, Consolidation III



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**DD6. 774TH EXPEDITIONARY AIRLIFT SQUADRON MEMORANDUM  
FOR RECORD, 7 DECEMBER 2015**



**DEPARTMENT OF THE AIR FORCE**  
ACCIDENT INVESTIGATION BOARD  
SCOTT AIR FORCE BASE, ILLINOIS

7 December 2015

MEMORANDUM FOR RECORD

FROM: Accident Investigation Board

SUBJECT: 774th Expeditionary Airlift Squadron (774 EAS)

1. The purpose of this memorandum is to document the mission of the 774th Expeditionary Airlift Squadron that was received from the Public Affairs office at the 455th Air Expeditionary Wing. No official fact sheet has been created for the squadron.
2. The 774th Expeditionary Airlift Squadron's mission is to provide premier C-130 combat airlift, airdrop, and aeromedical evacuation to the warfighter in Afghanistan and the entire Central Command Area of Operations. The 774th EAS C-130s are the backbone of intra-theater resupply, sustainment, and troop movement in Afghanistan.

SIGNED

AIB/LA  
Legal Advisor

Lt Col, USAF

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# DD7. C-130J- HERCULES FACT SHEET, 1 SEPTEMBER 2003

C-130 Hercules > U.S. Air Force > Fact Sheet Display

Page 1 of 3



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## C-130 Hercules

Published September 01, 2003



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Of 5 A line of C-130 Hercules aircraft prepare to depart Ramstein Air Base, Germany, March 5 for mass tactical training. The training allows 86th Airlift Wing aircrews to maintain proficiency in large formation flying and airdrop operations. (U.S. Air Force photo/Senior Airman Melissa Sheffield)

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### Mission

The C-130 Hercules primarily performs the tactical portion of the airlift mission. The aircraft is capable of operating from rough, dirt strips and is the prime transport for airdropping troops and equipment into hostile areas. The C-130 operates throughout the U.S. Air Force, serving with Air Mobility Command, Air Force Special Operations Command, Air Combat Command, U.S. Air Forces in Europe, Pacific Air Forces, Air National Guard and the Air Force Reserve Command, fulfilling a wide range of operational missions in both peace and war situations. Basic and specialized versions of the aircraft airframe perform a diverse number of roles, including airlift support, Antarctic ice resupply, aeromedical missions, weather reconnaissance, aerial spray missions, firefighting duties for the U.S. Forest Service and natural disaster relief missions.

### Features

Using its aft loading ramp and door, the C-130 can accommodate a wide variety of oversized cargo, including everything from utility helicopters and six-wheeled armored vehicles to standard palletized cargo and military personnel. In an aerial delivery role, it can airdrop loads up to 42,000 pounds or use its high-floatation landing gear to land and deliver cargo on rough, dirt strips.

The flexible design of the Hercules enables it to be configured for many different missions, allowing one aircraft to perform the role of many. Much of the special mission equipment added to the Hercules is removable, allowing the aircraft to return to its cargo delivery role if desired. Additionally, the C-130 can be rapidly reconfigured for the various types of cargo such as palletized equipment, floor-loaded material, airdrop platforms, container delivery system bundles, vehicles and personnel or aeromedical evacuation.

The C-130J is the latest addition to the C-130 fleet and will replace aging C-130Es. The C-130J incorporates state-of-the-art technology, which reduces manpower requirements, lowers operating and support costs, and provides life-cycle cost savings over earlier C-130 models. Compared to older C-130s, the J model climbs faster and higher, flies farther at a higher cruise speed, and takes off and lands in a shorter distance. The C-130J-30 is a stretch version, adding 15 feet to the fuselage, increasing usable space in the cargo compartment.

C-130J/J-30 major system improvements include advanced two-pilot flight station with fully integrated digital avionics, color multifunctional liquid crystal and head-up displays and state-of-the-art navigation that includes a dual inertial navigation system and GPS. The aircraft also features fully integrated defensive systems, low-power color radar, digital moving map display, new turboprop engines with six-bladed all-composite propellers and a digital auto pilot. The C-130J/J-30 also includes improved fuel, environmental and ice-protection and an enhanced cargo-handling system.

### Background

Four decades have elapsed since the Air Force issued its original design specification, yet the remarkable C-130 remains in production. The initial production model was the C-130A, with four Allison T56-A-11 or -9 turboprop engines. A total of 219 were ordered and deliveries began in December 1956. The C-130B introduced Allison T56-A-7 turboprop engines and the first of 134 entered Air Force service in May 1959.

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<https://t.co/WhatIsBeingToday> doesn't have to be "gone tomorrow." <https://t.co/pGSseJHnkz> #USAF #Recycling <https://t.co/O4wGHjq7I>

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## C-130 Hercules &gt; U.S. Air Force &gt; Fact Sheet Display

Introduced in August of 1962, the 389 C-130Es that were ordered using the same Allison T56-A-7 engine, but adding two 1,290 gallon external fuel tanks and an increased maximum takeoff weight capability. June 1974 introduced the first of 308 C-130Hs with the more powerful Allison T56-A-15 turboprop engine. Nearly identical to the C-130E externally, the new engine brought major performance improvements to the aircraft.

The latest C-130 to be produced, the C-130J, entered the inventory in February 1999. With the noticeable difference of a six-bladed composite propeller coupled to a Rolls-Royce AE2100D3 turboprop engine, the C-130J brings substantial performance improvements over all previous models. The C-130J-30, a stretch version with a 15-foot fuselage extension, increases the capabilities even more. To date, the Air Force has taken delivery of 77 C-130J aircraft from Lockheed-Martin Aeronautics Company.

Active-duty locations for the C-130 and its variations are Dyess Air Force Base, Texas; Little Rock AFB, Ark.; Ramstein Air Base, Germany; and Yokota AB, Japan.

Air Force Reserve locations for assigned C-130 models are Dobbins Air Reserve Base, Ga.; Keesler AFB, Miss.; Maxwell AFB, Ala.; Minnesota-St. Paul Joint Air Reserve Station, Minn.; Niagara Falls ARS, N.Y.; Peterson AFB, Colo.; Pittsburgh ARS, Pa.; Pope Field, N.C. and Youngstown ARS, Ohio.

Air National Guard locations for the C-130 and its variations are Joint Reserve Base Carswell, Texas; Channel Island Air National Guard Station, Calif.; Charlotte/Douglas International Airport, N.C.; Cheyenne Municipal Airport, Wyo.; Kulis Air National Guard Base, Alaska; Little Rock AFB, Ark.; Louisville IAP, Ky.; Munoz ANGB, Puerto Rico; Minnesota-St. Paul ARS, Minn.; Nashville IAP, Tenn.; New Castle County ANGB, Del; Greater Peoria Regional Airport, Ill.; Quonset State Airport, R.I.; Reno-Tahoe IAP, Nev.; Savannah IAP, Ga.; Schenectady MAP, N.Y.; Rosecrans Memorial Airport, Mo.; and Yeager Airport, W.V.

#### General Characteristics

**Primary Function** Global airlift

**Contractor** Lockheed-Martin Aeronautics Company

#### Power Plant

C-130E: Four Allison T56-A-7 turboprops; 4,200 prop shaft horsepower

C-130H: Four Allison T56-A-15 turboprops; 4,591 prop shaft horsepower

C-130J: Four Rolls-Royce AE 2100D3 turboprops; 4,700 horsepower

**Length** C-130E/H/J: 97 feet, 9 inches (29.3 meters)

C-130J-30: 112 feet, 9 inches (34.69 meters)

**Height:** 38 feet, 10 inches (11.9 meters)

**Wingspan:** 132 feet, 7 inches (39.7 meters)

#### Cargo Compartment:

C-130E/H/J: length, 40 feet (12.31 meters); width, 119 inches (3.02 meters); height, 9 feet (2.74 meters). Rear ramp: length, 123 inches (3.12 meters); width, 119 inches (3.02 meters)

C-130J-30: length, 55 feet (16.9 meters); width, 119 inches (3.12 meters); height, 9 feet (2.74 meters). Rear ramp: length, 123 inches (3.12 meters); width, 119 inches (3.02 meters)

#### Speed

C-130E: 345 mph/300 kts (Mach 0.49) at 20,000 feet (6,060 meters)

C-130H: 366 mph/318 kts (Mach 0.52) at 20,000 feet (6,060 meters)

C-130J: 417 mph/362 kts (Mach 0.59) at 22,000 feet (6,706 meters)

C-130J-30: 410 mph/356 kts (Mach 0.58) at 22,000 feet (6,706 meters)

#### Ceiling

C-130J: 28,000 feet (8,615 meters) with 42,000 pounds (19,090 kilograms) payload

C-130J-30: 26,000 feet (8,000 meters) with 44,500 pounds (20,227 kilograms) payload.

C-130H: 23,000 feet (7,077 meters) with 42,000 pounds (19,090 kilograms) payload.

C-130E: 19,000 feet (5,846 meters) with 42,000 pounds (19,090 kilograms) payload

#### Maximum Takeoff Weight

C-130E/H/J: 155,000 pounds (69,750 kilograms)

C-130J-30: 164,000 pounds (74,393 kilograms)

#### Maximum Allowable Payload

C-130E, 42,000 pounds (19,090 kilograms)

C-130H, 42,000 pounds (19,090 kilograms)

C-130J, 42,000 pounds (19,090 kilograms)

C-130J-30, 44,000 (19,958 kilograms)

#### Maximum Normal Payload

C-130E, 36,500 pounds (16,590 kilograms)

C-130H, 36,500 pounds (16,590 kilograms)

C-130J, 34,000 pounds (15,422 kilograms)

C-130J-30, 36,000 pounds (16,329 kilograms)

#### Range at Maximum Normal Payload

C-130E, 1,150 miles (1,000 nautical miles)

C-130H, 1,208 miles (1,050 nautical miles)

C-130J, 2,071 miles (1,800 nautical miles)

C-130J-30, 1,956 miles (1,700 nautical miles)

#### Range with 35,000 pounds of Payload

C-130E, 1,438 miles (1,250 nautical miles)

C-130H, 1,496 miles (1,300 nautical miles)

C-130J, 1,841 miles (1,600 nautical miles)

C-130J-30, 2,417 miles (2,100 nautical miles)

#### Maximum Load

C-130E/H/J: 6 pallets or 74 litters or 16 CDS bundles or 92 combat troops or 64 paratroopers, or a combination of any of these up to the cargo compartment capacity or maximum allowable weight.

C-130J-30: 8 pallets or 97 litters or 24 CDS bundles or 128 combat troops or 92 paratroopers, or a combination of any of these up to the cargo compartment capacity or maximum allowable weight.

**Crew:** C-130E/H: Five (two pilots, navigator, flight engineer and loadmaster)

C-130J/J-30: Three (two pilots and loadmaster)

Aeromedical Evacuation Role: A basic crew of five (two flight nurses and three medical technicians) is added for aeromedical

evacuation missions. Medical crew may be decreased or increased as required by the needs of patients.

**Unit Cost** C-130E, \$11.9; C-130H, \$30.1; C-130J, \$48.5 (FY 1998 constant dollars in millions)

**Date Deployed** C-130A, Dec 1956; C-130B, May 1959; C-130E, Aug 1962; C-130H, Jun 1974; C-130J, Feb 1999

Inventory: Active force, 145; Air National Guard, 181; Air Force Reserve, 102

**(Current as of May 2014)**

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# **TAB EE**

## **MISCELLANEOUS**

EE1. PROPRIETARY RELEASE AUTHORIZATION, 11 DECEMBER 2015 .....	EE-3
EE2. FIRE RESPONSE REPORT, 2 OCTOBER 2015 .....	EE-4
EE3. AFTO FORM 46, 22 SEPTEMBER 2015.....	EE-7
EE4. NVG SIGN OUT, 1 OCTOBER 2015.....	EE-9
EE5. MISSION AUTHORIZATION E-MAIL, 15 DECEMBER 2015.....	EE-10
EE6. C-130J DEPLOYED CREW BRIEFING GUIDE MEMORANDUM, 15 DECEMBER 2015 .....	EE-11
EE7. AFGHAN CASUALTY MEMORANDUM, 19 NOVEMBER 2015 .....	EE-12
EE8. LOCKHEED-MARTIN PROPRIETARY RELEASE AUTHORIZATION, 15 DECEMBER 2015 .....	EE-13
EE9. HUMAN REMAINS DISPOSITION EMAIL, 16 OCTOBER 2015.....	EE-14

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**EE1. PROPRIETARY RELEASE AUTHORIZATION,  
11 DECEMBER 2015**

**From:**  
**To:** AIB/LA  
**Subject:** C-130 Jalalabad "Fire/Emergency Incident Report"  
**Date:** Friday, December 11, 2015 5:54:47 AM  
**Attachments:** [C-130 Fire Report.pdf](#)

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AIB/LA

Greetings,  
I serve as legal counsel in Afghanistan

We respectfully request that the "Fire/Emergency Incident Report" have some redactions.

Please note I was  
unable use the redacting tool to accomplish the redactions.

Please let me know if I can be of further assistance.

Thanks

Thank you,

| [Special Counsel for Afghanistan](#) |

# EE2. FIRE RESPONSE REPORT, 2 OCTOBER 2015

## Fire/Emergency Incident Report

### Fire & Emergency Services

<b>REPORT TYPE</b>	<b>Site:</b>	Fenty, AFGHANISTAN
Draft Report <input checked="" type="checkbox"/> Yes	<b>Date of Incident:</b>	2-Oct-2015
Final Report <input checked="" type="checkbox"/> No	<b>NFIRS Incident Number:</b>	1500045
	<b>Response Category:</b>	EMERGENCY

### INCIDENT INFORMATION

Installation CJI	Fire District FD1	Building Number Compound
Fire/Non-Fire Fire	Construction Type N/A	Area, Structure, or Occupancy Involved Outside
Method of Alarm PHONE - CRASH LINE	Incident Category Aircraft	Incident Type Aircraft, Crash

### INCIDENT TIMES

Alarm Answering Time/RECEIVED 0:16:24	Crews Notification Time/DISPATCHED 0:17:17	Alarm Processing Time 0:00:53
Crews Notification Time/DISPATCHED 0:17:17	Point of Travel Time/RESPONDING 0:18:05	Turnout Time 0:00:48
Point of Travel Time/RESPONDING 0:18:05	On-Scene Time 0:54:22	Travel Time 0:36:17
On-Scene Time 0:54:22	Incident Stabilized 3:43:09	
Termination Time 14:20:03	<b>TOTAL RUN TIME</b> 14:03:39	<b>AGGREGATE RESPONSE TIME</b> 0:37:58

### INCIDENT DAMAGE

DOD Loss Fire Related	DOD Loss Non-Fire Related \$0	DOD Exposed Value
Non-DOD Loss Fire Related	Non-DOD Loss Non-Fire Related \$0	Non-DOD Exposed Value

### RESPONDING RESOURCES

9

Responding Units	Responding Units	Other Resources Requested, Utilized
Chief-2	Tanker-9	Military
Chief-1	Rescue-3	North Compound Personnel (NCP)
Crash-5		
Crash-13		
Tanker-8		

## Fire/Emergency Incident Report

### INJURIES / FATALITIES

Number Injured N/A	<b>Military</b> Fatalities 9	First Responder / Bystander Save N/A
Victim(s) Age Unknown	Victim(s) Gender Unknown	Injury Type(s) N/A
	Victim(s) Rank Unknown	

Number Injured N/A	<b>Civilian</b> Fatalities 5	First Responder / Bystander Save N/A
Victim(s) Age Unknown	Victim(s) Gender Unknown	Injury Type(s) N/A

Firefighter Injured N/A	<b>Firefighter</b> Duty Title N/A	SPOT Report Completed N/A
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### ALARM SYSTEM

Alarm System Provided N/A	Type of System N/A	Alarm System First Indicator of Fire N/A
Operated at Fire N/A		Alarm System Connected to FACC N/A

### NARRATIVE

At 00:16hrs the Fire Alarm Communication Center (FACC) received notification via CRASH phone of a C-130 that crashed off base approximately one mile north of the runway. All crews responded to their standby points according to the response matrix. Chief 2 advised that he could see smoke and flames from the station. Chief 1 responded to Entry Control Point 1 (ECP) to meet with military personnel in order to get a better assessment. Ten minutes later, the FACC received a phone call via Direct Service Number (DSN) stating that the crash was on the Afghan side of the base (Northeast side). The Aircraft Rescue and Firefighting (ARFF) vehicles were then staged on Alpha ramp and the remaining responding vehicles were staged at ECP 1. Minutes later it was confirmed that the crash was in the compound and North Compound Personnel (NCP) were enroute to escort the fire department to the site. It took 17 minutes to navigate through the narrow gates and congested traffic in order to reach the incident. Once on scene, Chief 1 established Incident Command (IC), Chief 2 was assigned operations and Chief 3 was assigned safety and accountability. A command post was setup by Chief 1 and Unified Command was established with the military and NCP personnel. We had communication issues throughout the early stages of the incident due jamming devices. Chief 2 advised that the plane was completely engulfed in flames. A scene assessment was conducted and a minimum of 75 feet perimeter was established. One casualty was found immediately within the perimeter along with one patient during the primary search. Both were taken to the base hospital. A Death, Injury and Missing (DIM) count was given by command at that time. The plane appeared to have been broken into two pieces, one piece on base and the other off base. However, further assessment revealed that it was only minor debris off base that was burning which was extinguished by the local Afghan fire department and the plane did not break into two pieces. The plane hit several trees, a perimeter wall and a guard tower. Crash 5 began suppression utilizing its roof turrets and the inferno was reduced to 50% within 2 minutes after the initial attack. Tanker 8 was used to re-service Crash 5 while Crash 13 continued with suppression operations. Military personnel confirmed that eleven personnel were on board the C-130 and NCP confirmed that the persons on found in the perimeter were their personnel and one more could be in the tower that was hit by the plane. This was confirmed later when NCP gained access to the tower and located the victim. An updated DIM count was reported. Military medics and NCP medics established a triage area and Field Litter Ambulances (FLA's) were staged nearby. Pararescue Jumper's (PJ's) arrived on scene and conducted another assessment with command.

## Fire/Emergency Incident Report

### NARRATIVE Continued

Once the fire was reported at 75% extinguished, handlines were used to move in closer in order to douse the remaining fire in several locations. Two personnel entered the Immediately Dangerous to Life and Health (IDLH) area with contained breathing apparatus (SCBA's) and started attacking the fires. The fires became very difficult to extinguish at this point due to large pieces of metal that contained magnesium and the compacted cargo contents. A 10' x 10' connex was blocking an entry path to a deep seated fire. A large truck was used to pull the connex from the wreckage. Once the container was separated, four more 10' x 10' containers were revealed. All of the containers were compromised and its contents were consumed with flames. Rescue 3 personnel used saws to cut holes in the containers to allow for effective stream reach. Once the flames were knocked down and the containers cooled, heavy equipment was brought in to extract them from the area. During this time, the fire was reported as being 90% extinguished and under control after four hours from the initial call. All crews were placed into rehab, equipment was accounted for and both Crash trucks were re-serviced. Tanker 9 was used to shuttle water from the Emergency Water Supply (EWS) back to the scene. A Personnel Accountability Report (PAR) was conducted every 15 minutes with 100% accountability every time. Also during this rehab period, heavy equipment operators started the rigging process of the containers. Command initiated a recall of off duty personnel. As soon as all on duty firefighters were replaced with the off duty crews, operations resumed in the salvage and overhaul mode. After two containers were extracted, five victims were located in the ruins of the fuselage. The PJ's and fire crews worked together in removing the victims. This process continued as more victims were found after the removal of the remaining connexes. Command updated the DIM count each time. Around 09:30, Chief 1 was requested by the military to attend a meeting in reference to the incident. Command was then transferred to Chief 2. Salvage and overhaul operations continued for another 4.5 hours with another crew swap at 12:30, before all fires were completely extinguished. At that point, the scene was transferred to the military and the incident was reduced to a standby. Chief 2 terminated command and Chief 3 along with Crash 13 and Tanker 8 stoodby until later released by military IC. There were no reportable fire department related injuries. All trucks returned to quarters without incident and all sensitive items and

Internal Distribution List		External Distribution List	
Fire Chief	X		<a href="#">Operations@</a>
Deputy Fire Chief	X	X	Operations Manager
Assistant Fire Chief (s)	X	X	Other: <a href="#">Fire@</a> <a href="#">.com</a>

Report Prepared By:  
On Duty Assistant Fire Chief  
or Responding Senior Fire Officer

Name	
Fire Chief	
Title	
Phone Number	
Email Address	

SIGNED

Signature

Report Approved By:  
Fire Chief  
or Senior Fire Official

Name	
Fire Chief	
Title	
Phone Number	
Email Address	

SIGNED

Signature



<b>ISSUING AGENCY</b>	<i>I certify that the aircrew flight equipment listed on this form is prepositioned on this aircraft on the date indicated.</i>			
NAME SSgt W27	GRADE E-5			
SIGNATURE Click to sign	DATE			
<b>CERTIFICATION</b>				
<b>(To be completed by aircraft commander or designated representative prior to departure.)</b> <i>I certify that the items on this form are on board and in apparent serviceable condition on the date indicated by my signature.</i>				
NAME AND DATE	NAME AND DATE	NAME AND DATE	NAME AND DATE	
<b>REMARKS</b>				
Postflight (FOR AIRCREW FLIGHT EQUIPMENT ONLY):				
Date	Time	Rank, Name (printed)	Signature	Remarks
_____	_____	_____	_____	_____
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AFTO FORM 46, 20121128

**EE4. NVG SIGN OUT, 1 OCTOBER 2015**

DATE		1-Oct-15		Zulu		Local		TAIL #		3174		REMEMBER TO ARM UP				
EAU	Typ	Show Time	Return Time	15:00	08:45	19:30	08:15	ALEP Bag	CSEL Bag	HHRID	Aircrew Sign-Out / Signature	Additional Equipment	NVG Postflight	NVG RETURNED	CSEL/ALEP POSTFLIGHT	Helmet Postflight
		T62														
		MP		087	157											
		MCP		141												
		ML1		12				#1								
		ML2		100				#1								

## EE5. MISSION AUTHORIZATION E-MAIL, 15 DECEMBER 2015

**From:** AIB/PM  
**To:** AIB/LA  
**Subject:** FW: [UNSIGNED MSG] Mission Authority Question  
**Date:** Tuesday, December 15, 2015 5:14:06 PM

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Mission authority asked/answered below.

-----Original Message-----

**From:**  
**Sent:** Tuesday, December 15, 2015 2:13 PM  
**To:** AIB/PM  
**Subject:** RE: [UNSIGNED MSG] Mission Authority Question

609 AOC/AMD is the authorization authority for that mission and our current AMD Chief is .

//SIGNED//

, Capt, USAF  
Air Mobility Division Tactics  
609 AOC, Al Udeid Air Base, Qatar  
DSN:  
VOSIP:  
NIPR  
SIPR

-----Original Message-----

**From:** AIB/PM  
**Sent:** Tuesday, December 15, 2015 1:46 AM  
**To:**  
**Subject:** [UNSIGNED MSG] Mission Authority Question

We spoke yesterday to clarify the "authority that authorized the mission" in the Torque 62 mishap. Can you confirm that the authorization authority for that particular mission/sortie would have been the AMD Chief (O-6)? An e-mail reply should be sufficient for our documentation. Thanks for your help in the course of this investigation.

AIB/PM  
Pilot Member, Accident Investigation Board  
DSN:

**EE6. C-130J DEPLOYED CREW BRIEFING GUIDE MEMORANDUM,  
15 DECEMBER 2015**



**DEPARTMENT OF THE AIR FORCE  
HEADQUARTERS 774TH EXPEDITIONARY AIRLIFT SQUADRON  
BAGRAM AIRFIELD, AFGHANISTAN  
APO AE 09352**

15 December 2015

**MEMORANDUM FOR RECORD**

**FROM:** 774 Expeditionary Airlift Squadron (EAS) Chief of Tactics

**SUBJECT:** C-130J Deployed Crew Briefing Guide

1. The purpose of this memorandum is to describe the topics covered in the daily intelligence and tactics briefing provided to 774 EAS aircrews before flight.
2. The daily intelligence and tactics briefing is a classified **SECRET** briefing used to cover applicable topics of interest to aircrews operating in Afghanistan. The intelligence briefing includes theater-wide concerns as well as airfield specific information for the mission. The tactics portion of the briefing includes squadron commander specific concerns, loadmaster superintendent concerns, notes from the tactics shop, and airfield specifics to include weather, airfield information, approach information, runway environment, runway dimensions, taxi directions, and departure instructions.
3. The daily intelligence and tactics briefing is a standard briefing template that is used as a guide to cover all topics required by AFTTP 3-3.C-130J. Direct questions regarding this memorandum to the undersigned at DSN: .

SIGNED

W12

Chief of Tactics, 774 EAS

***"Fly, Fight, Win!"***

*C-130J, T/N 08-3174, 2 October 2015*

EE-11

**EE7. AFGHAN CASUALTY MEMORANDUM, 19 NOVEMBER 2015**

*Embassy of the United States of America*



19 November 2015

**FROM:** Department of State - Annex  
Jalalabad Airfield  
Jalalabad, Afghanistan

**MEMORANDUM FOR THE RECORD**

**SUBJECT:** Special Reaction Force (SRF) Indigenous personnel  
killed in the 2 October 2015 USAF C-130 mishap

1. The purpose of this Memorandum for the Record is to document  
the three Special Reaction Force personnel killed in the 2 October 2015  
USAF C-130 mishap.
- 2.

SIGNED

Chief of Base

## **EE8. LOCKHEED-MARTIN PROPRIETARY RELEASE AUTHORIZATION, 15 DECEMBER 2015**

**From:**  
**To:** AIB/LA  
**Subject:** LM Analysis C-130J 10/2/15  
**Date:** Tuesday, December 15, 2015 10:49:30 AM  
**Attachments:** [img-Z15113838-0001.pdf](#)

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AIB/LA

Attached is the redacted report from LM Flight Safety, which the AIB has requested to include in the AIB publicly releasable report.

The attached report includes these markings (i) blocked out redactions for LM proprietary information, (ii) black outline markings for export controlled information, and (iii) brackets.

Thank you.

Associate General Counsel  
Lockheed Martin Aeronautics Company

## EE-9. HUMAN REMAINS DISPOSITION EMAIL, 16 OCTOBER 2015

**From:** [Maj USAF AFCENT 455 AEW/JA](#)  
**To:** AIB/LA [Lt Col USAF AMC 18 AF JA/18 AF/JA](#)  
**Subject:** Follow Up on Crash Site  
**Date:** Friday, October 16, 2015 9:29:00 AM

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AIB/LA Looks like the remains are being well taken care of. See below.

Take care and I look forward to crossing paths again.

r/

-----Original Message-----

**From:** MAJ USA RSSB  
[\[mailto: \]](#)  
**Sent:** Friday, October 16, 2015 2:37 PM  
**To:** COL USA USFOR-A JTF-3 SJA; Maj  
USAF AFCENT 455 AEW/JA  
**Cc:** Maj USAF AFCENT 455 AEW/JA; MAJ USA  
USFOR-A JTF-3 SJA Chief Admin Law; USA MAJ TAAC-E CJA;  
MAJ USARMY HQDA TJAGLCS (US)  
**Subject:** RE: Follow Up on Crash Site

ALCON:

Two mortuary affairs personnel (389th CSSB) from KAF are on ground at Fenty sifting through the soil for HR and will continue to do so until all the soil in the area has been adequately sifted. Does that answer the concerns?

Very Respectfully,

MAJ, JA  
Brigade Judge Advocate  
Resolute Support Sustainment Brigade  
Task Force Muleskinners  
Bagram Airfield  
DSN: /SVOIP

-----Original Message-----

From: AIB/LA Lt Col USAF AMC 18 AF JA/18 AF/JA

[\[mailto: \]](#)

Sent: Friday, October 16, 2015 1:55 AM

To: Maj USAF AFCENT 455 AEW/JA

Cc: Maj USAF AFCENT 455 AEW/JA

Subject: [UNSIGNED MSG] Follow Up on Crash Site

A question has come up that I'm trying to run down for Brig Gen Mordente. Can you put me in contact with your Mortuary Affairs POC?

Background: While visiting Jalalabad, Maj pointed out mounds of dirt that had been removed from the crash site. They dug down about 18 inches at the crash site in an effort to remove all of the debris and jet fuel. Some of the piles were marked "HR," indicating human remains had been seen mixed in with the dirt. Brig Gen Mordente wants to confirm that someone will go through those piles, remove any human remains and ensure their proper disposition. I believe Mortuary Affairs is the proper POC, but if you find that it falls within someone else's lane, please pass their contact info along to me.

To be clear, Brig Gen Mordente is asking in a commander's capacity, not as the AIB Board President.

Lt Col AIB/LA

AIB/LA Lt Col, USAF

Deputy Staff Judge Advocate

18th Air Force

DSN

Comm

Work Cell

**INTENTIONALLY**

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