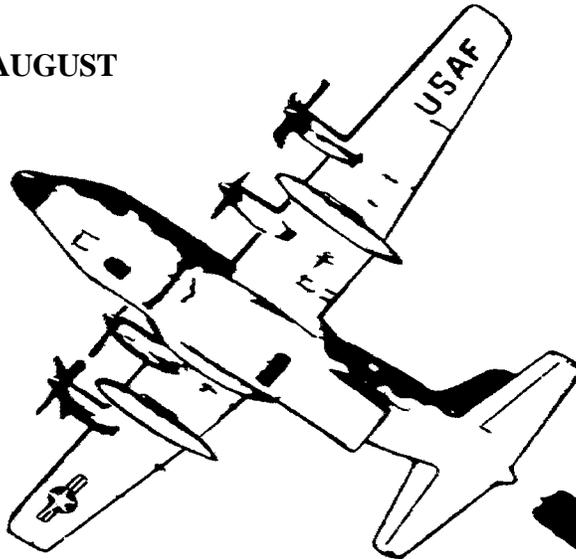


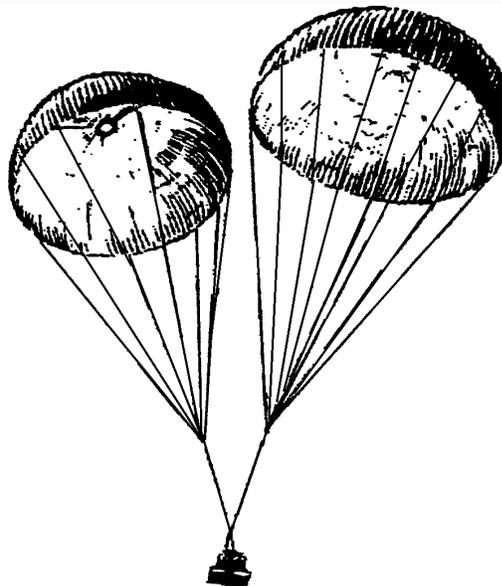
MAY - AUGUST

VOLUME II 1998



TRIENNIAL

**AIRDROP REVIEW
AND
MALFUNCTION/SAFETY
ANALYSIS**



PREPARED BY
THE US ARMY QUARTERMASTER SCHOOL
FORT LEE, VIRGINIA 23801-1502

AIRBORNE CREED

I am an Airborne trooper! A paratrooper!

I jump by parachute from any plane in flight. I volunteered to do it, knowing well the hazards of my choice.

I serve in a mighty Airborne Force—famed for deeds in war—renowned for readiness in peace. It is my pledge to uphold its honor and prestige in all I am—in all I do.

I am an elite trooper—a sky trooper—a shock trooper—a spearhead trooper. I blaze the way to far-flung goals—behind, before, above the foe's front line.

I know that I may have to fight without support for days on end. Therefore, I keep mind and body always fit to do my part in any airborne task. I am self-reliant and unafraid. I shoot true, and march fast and far. I fight hard and excel in every art and artifice of war.

I never fail a fellow trooper. I cherish as a sacred trust the lives of men with whom I serve. Leaders have my fullest loyalty, and those I lead never find me lacking.

I have pride in the Airborne! I never let it down!

In peace, I do not shirk the dullest duty nor protest the toughest training. My weapons and equipment are always combat ready. I am neat of dress—military in courtesy—proper in conduct and behavior.

In battle, I fear no foe's ability, nor underestimate his prowess, power and guile. I fight him with all my might and skill—ever alert to evade capture or escape a trap. I never surrender, though I be the last.

My goal in peace or war is to succeed in any mission of the day—or die, if needs be, in the try.

I belong to a proud and glorious team—the Airborne, the Army, my Country. I am its chosen pride to fight where others may not go—to serve them well until the final victory.

*I am a trooper of the sky! I am my Nation's best!
In peace and war I never fail. Anywhere, anytime, in anything—
I am AIRBORNE!*

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PREFACE

The airdrop review and malfunction/safety analysis is published by the US Army Quartermaster School in hopes that by “passing the word” the malfunction rate within the Armed Forces may be minimized. The review and analysis in this issue covers the period 1 May 1998 - 31 August 1998.

POC AND MAILING ADDRESS

The POC for Airdrop Malfunction Reports, Monthly Airdrop Summary Reports, and any other information concerning the Airdrop Review and Malfunction/Safety Analysis is Mr. Roger Hale. All correspondence for the above reports and analysis should be addressed to:

**AERIAL DELIVERY AND FIELD SERVICES DEPARTMENT
ATTN MR ROGER HALE
USA QUARTERMASTER CENTER AND SCHOOL
1010 SHOP ROAD
FORT LEE VA 23801-1502**

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USA QUARTERMASTER CENTER AND SCHOOL
1010 SHOP ROAD
FORT LEE VA 23801-1502**

REPORTS AND ANALYSES

The Malfunction Review Board met at Fort Lee, Virginia on 21 - 22 October 1998. A breakdown of the areas in which malfunctions occurred from 1 May through 31 August 1998 follows:

<u>CATEGORY</u>	<u>QUANTITY</u>
Containers/CRRC	22
Platforms LVAD	21
Personnel	24

All DD Forms 1748-2 (Airdrop Malfunction Report (Personnel-Cargo)) are reviewed, and any identifying information is removed. Block 24 is annotated to include both Army and Air Force references if only one is given. No grammatical editing is done to the reports.

CARGO MALFUNCTION REPORTS AND ANALYSIS

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7

III. CARGO				
23. TYPE LOAD AND WEIGHT HE Mass 2780 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G12E/2	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT #1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This malfunction occurred on an 8-foot training load. The load extracted from the aircraft normally, but before the recovery parachutes could fully inflate, the M-1 release activated causing a mid-air release. The load was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Investigation of the M-1 release found that the timer had failed internally. The rivet that holds the pivoting release arm to the timer assembly had broken loose causing the fingers to retract.

CONTINUED ON NEXT PAGE

ANALYSIS: 24

WHAT WAS THE MALFUNCTION?

M-1 release activated causing a mid-air release of cargo parachutes.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Function check during building of M-1.
2. Possible material failure.
3. Overuse of equipment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Have riggers follow proper M-1 timer functional check procedures.
2. Change procedures to include breakdown inspection and repair capabilities to all parts of the M-1.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1180	10. ACFT SPEED (Knots) 145	11. DZ ELEVATION (Feet) 370	12. SURFACE WINDS (Knots) 351/12	13. VISIBILITY (Feet/Miles) 6 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT NA	24. RIGGED IAW (TM/TO/NAVAIR No.) NA	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS NA	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER NA	27. TYPE PARACHUTE AND NUMBER NA	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT NA

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Drogue parashaute deployed normally. It stayed inflated for approximately 12 seconds, then a loud bang occurred and parachute disappeared from the video screen. A malfunction was called and hit drogue jettison switch. Closed up aircraft and returned to base. No damage to aircraft.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Drogue line failed. Drogue link to include the jettison link remained in the aircraft, installed in the towplate release mechanism.

CONTINUED ON NEXT PAGE

ANALYSIS: 25

WHAT WAS THE MALFUNCTION?

Drogue parachute deployed normally, stayed inflated for approximately 12 seconds. Then drogue disappeared from video screen.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Nicks in drogue lines.
2. Material failure.
3. Unknown.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Need a drogue only parachute to improve quality of drogue parachutes.
2. Perform better inspection of drogues.
3. Design new drogue line to accomodate new drogue initiated airdrop procedures.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 550 AGL	10. ACFT SPEED (Knots) 140 KIAS	11. DZ ELEVATION (Feet) 1789	12. SURFACE WINDS (Knots) 140/11	13. VISIBILITY (Feet/Miles) 5 Miles
III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equip- ment/ 2650 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) 60 foot type XXVI extraction line failed after deployment of the 15 foot extraction parachute. The platform remained inside the aircraft. The extraction line recoiled back into the airplane when the extraction parachute separated. No damage incurred.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The investigation revealed the 60 foot one loop extraction line failed, the stitching broke at the splice. The splice may have been improperly sewn together at the factory. Also, the sling/ extraction line panel side tie straps/extraction line ties were forced together when the extraction line became taut, which indicates the line was trying to equalize the pressure in the single continuous loop. One ply of the line may have been taking all the extraction force and contributed to/caused the failure. The line could have been severely misaligned inside the line bag, even though the cotton buffers were in place and aligned on the EFTC link and type IV connectors during the joint airdrop inspection.				

CONTINUED ON NEXT PAGE

ANALYSIS: 26

WHAT WAS THE MALFUNCTION?

Failure of the extraction line to pull out load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Type IV link/stitching on extraction line broken.
2. Improper rigging of extraction line.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Pay more attention to detail during extraction line bag packing and extraction parachute rigging.
2. Change extraction/drogue parachute connector to a two-point link instead of type IV link.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1250	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) NA	12. SURFACE WINDS (Knots) 0-2	13. VISIBILITY (Feet/Miles) Clear/1

III. CARGO				
23. TYPE LOAD AND WEIGHT M198/23280	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-527/ TO 13C7-10-191 Chapter 5	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS NA	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER 5-G11C	28. SIZE EXTRACTION/RELEASE PARACHUTE One 28-foot Extraction	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT 1 of 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Aircraft was 6th in a 10-ship mission. Platform extracted from the aircraft normally. During tip off, the load angled severely towards the ground, going almost completely upside down. During deployment phase, the recovery parachutes elongated, started to inflate, then broke free from the load. The load impacted the ground nose first, completely destroying the load and the platform. Inpsection of the M2 release on impact site revealed that the timing block did fall and there were no parachute connectors at the impact site.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 After recovery of the suspension slings and the M2 release, the following items were noted during inspection: Right front sling has abrasions along the entire length, severe burns 9 feet from release. Right rear sling burns (2 plys fused together) 12 inches from release end, cuts and burns 30 inches from platform end. Both left slings have abrasions along the entire lengths. Release: Type XXVI nylon stuck in between arming cover and the front plate. Left suspension bolt sheared off 2 3/4-inches from threaded end. Contact marks on upper suspension link left side. Contact marks on lower left suspension link. Damage to: the inside of hte upper suspension link - right side, retainer clamp, right side, both toggles - lower right side and both plates on the right side, timer pins on bottom toggle lock slide - bent down, both keys in the timer are bent up, stress cracks in toggle lock slide retainer holes on timer delay assembly. Rearmed the timer, the keys extended but will not wind down. The release is removed from service and held for further investigation/ disposition instructions. From the 20-foot 21p riser extensions currently recovered, 1 is broken through

CONTINUED ON NEXT PAGE

Block 23 Continued:

2 plys 30 inches from the release end. After recreating the release, suspension sling, and riser extension arrangement on the howitzer and the internal damage to the M2 release, the malfunction is believed to have been caused by the M2 shifting off of the release platform, catching the right rear sling and the riser extension/extensions falling off the load and getting wrapped around a protrusion on the howitzer. These actions set up a side loading of the release. During the elongation of the recovery parachutes, the M2 release was held on the side of the load by the riser extensions causing the upper load suspension link to jerk violently to the left, slamming into the left suspension bolt, sheering it in two, allowing the bottom plate to separate enough to allow the timing block to fall, releasing the parachutes.

ANALYSIS: 27

WHAT WAS THE MALFUNCTION?

Mid air release of recovery parachutes.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Improper rigging procedures.
2. Shifting of release during flight.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Double check M-2 securing tie.
2. Follow proper rigging procedures for suspension lines and releases.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 550 AGL	10. ACFT SPEED (Knots) 150 KCAS	11. DZ ELEVATION (Feet) 1505	12. SURFACE WINDS (Knots) 5 Knots	13. VISIBILITY (Feet/Miles) 5 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Training Load 2,590	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 8 Foot Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Extraction from aircraft was normal, but only one of the main parachutes inflated. The second parachute entangled with the first one, broke free and dangled below the platform. The platform descended with one main. No damage to platform or load. The good parachute suffered three broken suspension lines.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 After watching video of the drop, the parachutes appeared to deploy normally. After pulling free from the deployment bags, the parachutes twisted together at the riser extensions. As the first parachute inflated, the second one became entangled in it's suspension lines. After number one fully inflated, the second one broke free from the lines, never inflated and dangled. Cause was undetermined.

CONTINUED ON NEXT PAGE

ANALYSIS: 28

WHAT WAS THE MALFUNCTION?

Only one of the main parachutes inflated. Second parachute entangled with the first one and broke free and dangled below the platform.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Improper rigging procedures of parachute or risers.
2. Load too light.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Follow proper rigging procedures.
2. Increase load weight.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 550 AGL	10. ACFT SPEED (Knots) 150	11. DZ ELEVATION (Feet) Unknown	12. SURFACE WINDS (Knots) 5	13. VISIBILITY (Feet/Miles) 10 Miles
III. CARGO				
23. TYPE LOAD AND WEIGHT Training 2910 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER (2) G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE 15 Foot Cargo Extraction	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Excessive aircraft maneuvers or vibration caused lock to fall back in.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Slowdown check was completed with all left locks removed normally. On green light, the extraction parachute deployed normally but the platform remained in the aircraft. The right emergency release handle was thrown, but the platform did not move. Malfunction was called and when the loadmasters started to chain the platform down, they noticed that left lock #18 had engaged back in to the platform . Lock #18 was 1 of 3 locks engaged in the platform. All 3 locks were set on pull #3 and two pulls per platform were used to ensure lock retraction. There was no excessive aircraft maneuvers or turbulence between the slowdown check and green light. The loadmaster was specifically asked if the lock felt solid when in the retracted position during the preflight and he said no problems were noticed.				

CONTINUED ON NEXT PAGE

ANALYSIS: 29

WHAT WAS THE MALFUNCTION?

Left hand locks fell back in after preslowdown and platform failed to extract.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

#18 left hand lock fell back in the platform.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Replace old locks with new locks (old locks are wearing out).
2. Ensure proper maintenance procedures are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 550 AGL	10. ACFT SPEED (Knots) 150	11. DZ ELEVATION (Feet) Unknown	12. SURFACE WINDS (Knots) 5	13. VISIBILITY (Feet/Miles) 10 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Training 2910 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Cargo Extraction	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
Old equipment with normal wear and tear.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
Extraction parachute deployed normally but failed to extract the platform. After the platform was secured, the loadmaster was looking at the extraction line when it broke at the 3-point link. No nicks or sharp edges were found on the 3-point link after the incident. The extraction parachute was stable behind the aircraft with no wild oscillation.

CONTINUED ON NEXT PAGE

ANALYSIS: 30

WHAT WAS THE MALFUNCTION?

Load failed to exit the aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible old extraction line (damaged).

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper procedures are followed.
2. JAI inspection of extraction lines.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) NA	10. ACFT SPEED (Knots) NA	11. DZ ELEVATION (Feet) NA	12. SURFACE WINDS (Knots) NA	13. VISIBILITY (Feet/Miles) NA

III. CARGO				
23. TYPE LOAD AND WEIGHT Sequential Heavy #1-2820 #2-3330	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL NO. PLATFORMS 2	CDS RELEASE GATE NO. CONTAINERS	OTHER (Explain)
26. TYPE PLATFORM/AIR-DROP CONTAINER TYPE V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot 60-Foot 1 Loop	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

At green light the extraction parachute failed to release from the bomb rack electrically. Primary loadmaster pulled the manual release T-handle 4 times with more than adequate downward force. Extraction parachute failed to release manually, emergency procedures were initiated and the rest of the mission was uneventful. Inspection of the bomb rack after landing by the loadmaster and crew chief showed: safety loop was not jammed up on top of the bent v ring, locking arm was disengaged from solenoid pin but did not raise up to release parachute, mounting bolts were in aft most holes, and manual release lever cable and return spring were attached and serviceable. Attempts to relock and release the parachute were unsuccessful (locking arm would not reengage solenoid pin). After bomb rack was removed by maintenance, the crew chief relocked the bomb rack and then pulled the release lever and the extraction parachute released normally.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Possible over torquing of mount bolts since bomb rack worked when removed, but aircraft has dropped heavy's and TBH's successfully before. No maintenance has been performed on bomb rack since last successful airdrop. Crew chief did say that the release lever was harder to pull than any other of our units aircraft. Bomb rack was removed from service.

CONTINUED ON NEXT PAGE

ANALYSIS: 31

WHAT WAS THE MALFUNCTION?

The extraction parachute failed to release from the bomb rack.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Bomb rack mounting bolts too tight pinching the release mechanism.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper maintenance procedures are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 472	12. SURFACE WINDS (Knots) 10	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment Mass/2716 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER (2) G12E	28. SIZE EXTRACTION/RELEASE PARACHUTE Ring Slot 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 2

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 This malfunction occurred on a sequential heavy equipment, number 2 of 2 with a 15-foot extraction parachute. At green light, the extraction parachute deployed and opened normally but the load failed to extract. The secondary loadmaster was in the process of giving the primary loadmaster the signal to pull the right hand crossover to emergency when he noticed the extraction parachute had deflated and saw broken suspension lines. At that time the loadmasters called malfunction and the aircrew performed all emergency procedures and cut the extraction parachute away over the salvo area. A search was conducted for the parachute but it was never found. No damage to any other equipment.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 This parachute had 28 drops on it since entering service in Jul 96. Since an inspection could not be accomplished, a definitive cause could not be determine. Suspect material failure.

CONTINUED ON NEXT PAGE

ANALYSIS: 32

WHAT WAS THE MALFUNCTION?

Load failed to exit aircraft.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Material failure of suspension lines of the extraction parachute.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Perform proper inspection procedures on material extraction lines and parachutes.
2. Storage areas.
3. Possible nicked ramp and door.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1200 MSL	10. ACFT SPEED (Knots) 145 Knots	11. DZ ELEVATION (Feet) 289	12. SURFACE WINDS (Knots) 250@3	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Training Heavy Equipment/ 3000 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 8-Foot Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Extraction parachute exited the aircraft normally, failed to inflate-cigarette rolled, and the load failed to move. Loadmaster released the right hand ADS locks and the load exited the aircraft. No damage to platform or load noted. Bottom panels and suspension line of extraction parachute burned from friction.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Cause unknown.

CONTINUED ON NEXT PAGE

ANALYSIS: 33

WHAT WAS THE MALFUNCTION?

Extraction parachute malfunctioned. Load did exit.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Material failure.
2. Packing errors.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Beef up extraction parachute.
2. Ensure proper packing procedures are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1000	10. ACFT SPEED (Knots) 140 Knots	11. DZ ELEVATION (Feet) 400 Feet	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 15 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment/ Training load	24. RIGGED IAW (TM/TO/NAVAIR No.) TO 1C-130A-9	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type IV	27. TYPE PARACHUTE AND NUMBER G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 LOADMASTER: Heavy equipment platform failed to extract from aircraft after extraction parachute (15-Foot parachute) deployed and disconnected from extraction line. Upon deployment of the extraction parachute, it immediately broke away from the extraction line itself. There was only momentary stress on the extraction line only before breaking away. PILOT: At green light we noticed slight tug then it disappeared as loadmaster called malfunction and told us extraction parachute departed aircraft while the load stayed on board.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 Type IV connector link connecting the extraction parachute to the extraction line failed. The parachute and link were never recovered or discovered on the DZ. There are few reasons why this would have failed but is very difficult to determine without the missing parachute or connector link. Until we can recover these air items we have to attribute this malfunction to material failure. The aircraft sustained no damage. The aircrew followed proper procedures.

CONTINUED ON NEXT PAGE

ANALYSIS: 34

WHAT WAS THE MALFUNCTION?

Load failed to extract.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible rigging errors (type IV connector link).

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper rigging procedures are followed.
2. Inspect keepers.
3. Take a closer look at type IV connector itself.
4. Change type IV connector to a two-point link for connecting lines and parachutes.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 800 Feet	10. ACFT SPEED (Knots) 130 IAS	11. DZ ELEVATION (Feet) 4000 Feet	12. SURFACE WINDS (Knots) 8-11	13. VISIBILITY (Feet/Miles) Clear
III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment 3620 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 2
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) One parachute failed to open. Parachute bag was destroyed, no damage to platform.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) This was a "delta" bag whose stitching did not allow it to be modified for an "echo" parachute. Panel holding the first stows failed to release until just before impact. Both panels were torn from the bag, eighty pound stows were still intact. Parachute never caught air.				

CONTINUED ON NEXT PAGE

ANALYSIS: 35

WHAT WAS THE MALFUNCTION?

Parachute failed to open.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Packing error.
2. Parachute never caught air.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Make sure all G12Ds are modified for G-12E procedures.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 760 Ft AGL	10. ACFT SPEED (Knots) 143 Knots GS	11. DZ ELEVATION (Feet) 234	12. SURFACE WINDS (Knots) 280/17	13. VISIBILITY (Feet/Miles) VFR

III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment/ 10,500 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22-Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 1070

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
15-foot drogue parachute inflated then failed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
Nine suspension lines broke evenly near the connector. All lines were stowed on top, four on the left side and five on the right side. Suspect lines had dry rotted.

CONTINUED ON NEXT PAGE

ANALYSIS: 36

WHAT WAS THE MALFUNCTION?

1. Drogue parachute inflated then failed.
2. Suspension lines broke.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Drogue parachutes may be excessively towed.
2. Material failure.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Implement, design or procure new drogue parachute.
2. Reinforce drogue lines.
3. Use different parachutes.
4. Check air speed.
5. Better tracking of year, manufacturer and number of drops.
6. Reefing line back into 15 foot parachute.
7. Stencil date and service on parachute.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1000 AGL	10. ACFT SPEED (Knots) 125	11. DZ ELEVATION (Feet) 235	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT M998 10,300 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-517/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V 16 feet	27. TYPE PARACHUTE AND NUMBER (2) G-11B	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot Drogue w/ 22 Foot Extraction	29. LENGTH OF REEFING LINE 16.5	30. POSITION OF LOAD IN AIRCRAFT 1 of 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

As the C-17 made its approach over the D, the 60 foot drogue line elongated through its normal sequence and the 15 foot drogue parachute fully inflated momentarily. It appeared that suspension lines were breaking apart which caused the 15-foot drogue to collapse. The loadmaster ejected the jettison link to separate it from the extraction link.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

An on site technical rigger inspection was conducted on the 15 foot drogue parachute. The inspection revealed that nine suspension lines were broken approximately six inches above the connector links. The suspension lines that broke were from both the left and right sides of the adapter web. The area where the suspension lines broke appeared to be swollen, this is normally caused due to excessive stress. The drogue parachute can not be recovered at this time due to the unit conducting an off post mission. The date of manufacture, and the contract number will be provided once the unit returns from their training exercise. Further information to follow when the unit returns.

CONTINUED ON NEXT PAGE

ANALYSIS: 37

WHAT WAS THE MALFUNCTION?

1. Drogue parachute inflated then failed.
2. Suspension lines broke.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Drogue parachutes may be excessively towed.
2. Material failure.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Implement, design or procure new drogue parachute.
2. Reinforce drogue lines.
3. Use different parachutes.
4. Check air speed.
5. Better tracking of year, manufacturer and number of drops.
6. Reefing line back into 15 foot parachute.
7. Stencil date and service on parachute.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-17	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 924 Feet	10. ACFT SPEED (Knots) 142 Knots GS	11. DZ ELEVATION (Feet) 265	12. SURFACE WINDS (Knots) 260 @ 4 knots	13. VISIBILITY (Feet/Miles) VFR
III. CARGO				
23. TYPE LOAD AND WEIGHT Mass Supply Training Load 3210 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE Ring Slot 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Locks 11 and 12
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) With normal drogue and extraction parachute deployment, load failed to extract. Loadmasters completed malfunction checklist, secured load and returned to base.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Right-hand ADS lock #12 failed to release properly. Post flight inspection found the lock was broken internally and was missing a required "stress pin". AMC has taken action to suspend all heavy equipment airdrop until a complete inspection of the fleet has been accomplished. Expect return to full heavy equipment operations soon.				

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ANALYSIS: 38

WHAT WAS THE MALFUNCTION?

Load failed to extract.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Dual rail lock #12 stress pin was missing.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper maintenance and fleet inspections are performed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 300	10. ACFT SPEED (Knots) N/A	11. DZ ELEVATION (Feet) 1505	12. SURFACE WINDS (Knots) N/A	13. VISIBILITY (Feet/Miles) N/A
III. CARGO				
23. TYPE LOAD AND WEIGHT Training Load 3160 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8 Chapter 11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 8 Foot Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15 Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 1117
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) After takeoff, the right lock (#19) being used to restrain the platform had released. A no-drop decision was made and no further drops were accomplished. Crew re-engaged the lock for landing and it was found once again to be unlocked after the landing.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) After review by the maintenance personnel, lock #19 was found to have a bad tension spring, and was out of adjustment. Lock was repaired and the mission departed without any further incident.				

CONTINUED ON NEXT PAGE

ANALYSIS: 39

WHAT WAS THE MALFUNCTION?

Loose platform prior to release point.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Lock #19 failed.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Maintenance - no recurring problems. Repaired.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 600 Feet AGL	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 640 Feet	12. SURFACE WINDS (Knots) 195/02	13. VISIBILITY (Feet/Miles) 9999
III. CARGO				
23. TYPE LOAD AND WEIGHT Heavy Equipment Platform/ 3450 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15 Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 530
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Parachutes deployed and immediately separated from airdrop platform. Airdrop platform flipped two to three rotations and impacted the ground upside down approximately 85 yards at 12 o'clock from impact point. Platform was destroyed. No other damage.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Speculate that the parachute riser fingers were not properly seated in MB-1 release.				

CONTINUED ON NEXT PAGE

ANALYSIS: 40

WHAT WAS THE MALFUNCTION?

Parachute separated from the load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Parachute connectors were not seated in the upper suspension link.
2. Timing block pin was sheared.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure JAI inspections are performed correctly.
2. Ensure loadmaster inspections are performed correctly.
3. Ensure proper rigging procedures are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 750 Feet AGL	10. ACFT SPEED (Knots) 140 Knots	11. DZ ELEVATION (Feet) 1780	12. SURFACE WINDS (Knots) 8 Knots	13. VISIBILITY (Feet/Miles) Unlimited

III. CARGO				
23. TYPE LOAD AND WEIGHT M119 Howitzer 10280 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-519/ TO 13C7-10-31	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 2	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER 16 Foot Type V	27. TYPE PARACHUTE AND NUMBER G-11B (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 22 Foot Ring Slot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 2

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The load extracted from the aircraft normally. The extraction parachute deployed, the load came out but the extraction system never transferred to the deployment phase. The load fell to the ground with no lift capabilities except for the extraction parachute. The howitzer was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

After reviewing a video tape of the drop and investigating the equipment, I found that the extraction force transfer coupling (EFTC) 3-point link failed to release during the extraction phase. This was possibly caused by the binding of the cable and the cam on the latch assembly of the EFTC. Therefore, the extraction system never transferred to the deployment phase to open the main cargo parachutes.

CONTINUED ON NEXT PAGE

ANALYSIS: 41

WHAT WAS THE MALFUNCTION?

Recovery parachutes never deployed.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Overtightening of the latch assembly/rust.
2. Possible cable problem.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. JAI/ensure free movement of link assembly.
2. Ensure May 96 and on messages for EFTC assemblies are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 550	10. ACFT SPEED (Knots) 210	11. DZ ELEVATION (Feet) 141	12. SURFACE WINDS (Knots) 050/5	13. VISIBILITY (Feet/Miles) Unrestricted

III. CARGO				
23. TYPE LOAD AND WEIGHT Training Platform 3300 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		<input checked="" type="checkbox"/> DUAL RAIL	<input type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT One of One

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After completion of the slowdown checklist, the loadmaster noticed the platform moving aft prior to the green light. Emergency procedures were followed and the aircraft returned to base without further incident.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

The cause of the malfunction was due to the #5 RH lock having a bad internal spring which failed to restrain the platform under normal flight conditions. The dual rail section replaced the lock after several failed tests.

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ANALYSIS: 42

WHAT WAS THE MALFUNCTION?

Loose platform prior to green light.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

#5 lock had a bad spring.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Rotate lock usage.
2. Ensure proper maintenance procedures are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 980 MSL	10. ACFT SPEED (Knots) 140 Knots	11. DZ ELEVATION (Feet) 442	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Clear

III. CARGO				
23. TYPE LOAD AND WEIGHT Training 3600 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-5	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-12E (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Load failed to exit aircraft due to a partially inflated parachute. The 15-foot extraction parachute was cut aft of the attaching point. The 15-foot extraction parachute had 5 broken suspension lines (10, 11, 12, 13, 14) and 6 ripped panels (8, 9, 10, 13, 14, 15). Most of the damage occurred on panels 13, 14, 15.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Cause could not be determined. Burn marks were noted on the extraction bag's left hand closing panel and on both the top and bottom portions of the break in the suspension line.

CONTINUED ON NEXT PAGE

ANALYSIS: 43

WHAT WAS THE MALFUNCTION?

Load failed to exit.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible material failure or improper packing.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper packing procedures are followed.
2. Track dates, number of drops, and year of manufacture of extraction parachutes.
3. Use two-point link instead of type IV link for parachutes/lines.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 2000	10. ACFT SPEED (Knots) 140	11. DZ ELEVATION (Feet) 1000	12. SURFACE WINDS (Knots) 12	13. VISIBILITY (Feet/Miles) 3 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Supply Training Load	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-512/ TO 13C7-1-8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V, 8-Foot, 2,290 LB load	27. TYPE PARACHUTE AND NUMBER G-11B (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE 15-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Lock #9 2.50

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Mid-air release of load. Load exited normally. 15-foot and G-11B cargo parachute both inflated. As load was oscillating, and just prior to the G-11B fully inflating the load released from the M-1. Load impacted the ground.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Possible the fingers on the release were not seated properly. There could have been a no load/ no lift condition, causing the load to free fall and separate from release prematurely. The M-1 was inspected and tested prior to JAI and inspected twice during JAI. After malfunction M-1 was tested again. M-1 operated fine, it fired at 12 seconds. M-1 was modified. Cross checked all messages with cage number of malfunctioned release. Nothing noted. Lanyard correct length, tied off and safety tied. Loadmaster was training several other loadmasters on JAI procedures and showing them how release is to be inspected. Lanyard could have been unseated somehow. M-1 was properly secured to load.

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ANALYSIS: 44

WHAT WAS THE MALFUNCTION?

Mid-air release of load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Weight below minimum.
2. Possible fingers were not seated.
3. Parachute connector fingers not properly seated.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Check weight of loads.
2. Ensure fingers are seated.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1200	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) 0-3	13. VISIBILITY (Feet/Miles) Clear/1
III. CARGO				
23. TYPE LOAD AND WEIGHT M198 Howitzer 23,340 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-527/ TO 13C7-10-191	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER Type V	27. TYPE PARACHUTE AND NUMBER G-11C (5)	28. SIZE EXTRACTION/RELEASE PARACHUTE 28-Foot	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 1
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Aircraft was first in a 3-ship mission. During approach the extraction parachute deployed and then broke free of the aircraft. The load gravity fed out of the aircraft never transitioning into main deployment phase. The load impacted the ground 350 yards at 1200 from the HEPI. The load was completely destroyed.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The malfunction was caused by the extraction line getting wedged between the platform and the rollers, possibly caused by a free rolling/floating platform. During elongation and deployment of the extraction line and parachute the plies were burned and torn allowing the extraction parachute, the plies were burned and torn allowing the extraction parachute and extraction line to separate from the load and the load exited to free-drop to the ground.				

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ANALYSIS: 45

WHAT WAS THE MALFUNCTION?

1. Load failed to transfer from extraction to deployment.
2. The extraction line broke during extraction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. One loop of the extraction line could have been shorter than others.
2. The load rolled over the extraction line trapping it and cutting the line.
3. The extraction line got caught on a roller tray.
4. Improper aircrew procedure.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Perform proper inspection and rigging of extraction line and line bags.
2. Ensure a straight line pull on the last five feet and three-point link.
3. Give extraction system proper time to work.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 600 AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 1120 MSL	12. SURFACE WINDS (Knots) 320/6	13. VISIBILITY (Feet/Miles) Clear

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 900 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-14 (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 530

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 At green light, the static line retriever ran momentarily then stopped, the gate failed to cut.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 Upon landing, the CDS was correctly rigged and JAI using the right side western gear winch. On further investigation, it was found that when the western gear winch is installed on the aircraft right side it is unreliable when it is used to cut CDS gates at flight station 617 and forwarded.

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ANALYSIS: 46

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Microswitch out of adjustment/beaded chains/cup not seated etc.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

The western gear winch has many problems and should be replaced. 64 percent of the CDS malfunctions were western gear static line retrievers.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130H	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 425 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 1100	12. SURFACE WINDS (Knots) 3	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 910 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 Chapter 8	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 530

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Static line retriever ran for approximately one second and shut off resulting in a negative cut of the type XXVI gate. The loadmaster called a malfunction and completed the checklists.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 The static line retriever was a western gear type. Inspection and operations check revealed a microswitch out of adjustment. As soon as slack was removed under power the microswitch activated and stopped the retriever run.

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ANALYSIS: 48

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Static line retriever microswitch out of limits causing the retriever to cut off prematurely.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

The western gear winch has many problems and should be replaced. 64 percent of the CDS malfunctions were western gear static line retrievers.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1580 MSL	10. ACFT SPEED (Knots) 150	11. DZ ELEVATION (Feet) 1175	12. SURFACE WINDS (Knots) 270/09	13. VISIBILITY (Feet/Miles) 7 Miles
III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1200 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL NO. PLATFORMS	CDS RELEASE GATE NO. CONTAINERS 3	OTHER (Explain) CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT #1 of 3
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) CDS #1 exited the aircraft normally. The aircraft configuration was the correct 5-degree deck angle and 150 knots at the time of the drop. The rollers and rails/CVR were all in excellent condition. The pilot parachute opened normally with the static line. The pilot parachute adapter web caught on the load 12 inches from the L-link attached to the main parachute causing the load to stay inverted and G-12E not to open. The CDS impacted the ground upside down (hit on the G-12E). At that point the G-12E broke off the load which bounced/rolled 40 feet to its final resting point. The pilot parachute was under the CDS bundle and the G-12E was resting at the ends of the risers. The adapter was twisted along the risers back to the pilot parachute under the bundle. The load was destroyed except for the G-12E canopy and the pilot parachute.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The pilot parachute adapter web caught on the CDS bundle preventing normal deployment of the G-12E. The pilot parachute stabilized the CDS bundle in the inverted position with a spiral movement further preventing normal deployment. The exact place where the adapter web caught could not be ascertained. It is suspected to be an upper buckle on the A22 container. This matches the tear and burn marks on the adapter web.				

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ANALYSIS: 49

WHAT WAS THE MALFUNCTION?

1. Main parachute did not deploy.
2. Never reached deployment of G-12.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Not enough information to determine the cause.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Unknown.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C 130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 450	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 0-100	12. SURFACE WINDS (Knots) 0-5	13. VISIBILITY (Feet/Miles) Clear
III. CARGO				
23. TYPE LOAD AND WEIGHT CDS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C-7-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 2	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE Pilot Parachute	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Wheelwell
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The unit has had a rash of centerlines to break in the past six months and we feel it is due to the lines getting wet and shrinking while drying. When we hook them up to the clevis upon repack we have to stretch them and bring the apex out from under the skirt of the parachute and this is a problem which we need some assistance in correcting.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The centerlines get wet and when you dry them out they shrink and this weakens them plus puts more stress on them at the initial inflation thus weakens the material or the material they are made out of is not up to par for the stress they go through on deployment.				

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ANALYSIS: 50

WHAT WAS THE MALFUNCTION?

Parachute centerline broke/failed.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Centerline too short.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper rigging procedures are performed.
2. Check for material deficiencies.
3. Inspect size of lines.
4. Ensure proper lengths of center lines.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 543	12. SURFACE WINDS (Knots) 330/8 Knots	13. VISIBILITY (Feet/Miles) 12 Miles
III. CARGO				
23. TYPE LOAD AND WEIGHT Container 910 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER Single Stick	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT F.S. 500
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) Upon green light, static line retriever ran approximately 1 second and stopped. Retriever was the western gear type. Cable was very tight but did not cut gate nor did it cut the safety tie.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) JAIs investigated the malfunction when the mission ended and ran the retriever several times including a pull test and gate cut. All tests were within limits and no cause could be determined for the malfunction.				

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ANALYSIS: 51

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Microswitch out of adjustment/beaded chains/cup not seated/etc.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

The western gear winch has many problems and should be replaced. 64 percent of the CDS malfunctions were western gear static line retrievers.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 425 AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 325 Feet	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7+ Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 105 MM HE 2,020 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 2	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 1 G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE 68-Inch Pilot Parachute	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1 of 2

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Load exited aircraft and pilot parachute deployed followed by G-12. When G-12 fully opened, the load separated from the parachute. No damage was done to the G-12 and half the load was destroyed. The 4 suspension webs were attached to the G-12 clevis, with one cut approximately 12 inches below the D-ring. The cut was straight across on one side, then the stitching ripped and the web had a V-shaped tear on the opposite side about 16-17.5 inches from the D-ring. Two suspension webs were intact, there were no D-rings attached to them and they were missing from the A-22 (straps on A-22 ripped). The fourth suspension web had a 1/4-inch cut with a 1 inch wide burn mark on one side. The D-ring was still attached to this suspension web (the A-22 straps had also been torn).

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 When load exited the aircraft, it tumbled with the skidboard facing up while the G-12 was elongating and deploying. During this phase, one suspension web was cut as it came in contact with the top or side of the load. Once the canopy fully inflated, the force jerked the A-22 upright causing the straps and two D-rings to tear and snap, completely separating the load from the G-12. None of the material on the A-22 or the suspension webs showed any sign of wear beyond what was mentioned above.

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ANALYSIS: 52

WHAT WAS THE MALFUNCTION?

Suspension web separated from failure of suspension web.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible high vertical CG. Tumbling allowed suspension webbing to come in contact with the load causing cutting of web. Once upright, unsemmetrical load caused other webbing to fail.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Insure proper rigging insisting on proper vertical CG and padding of all sharp corners.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 800 Feet AGL	10. ACFT SPEED (Knots) 130 KIAS	11. DZ ELEVATION (Feet) 550 Feet	12. SURFACE WINDS (Knots) Variable/5	13. VISIBILITY (Feet/Miles) 7+ Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1070 lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 500

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The pulley broke away from clevis; pulley and cable entangled in static line, parachute came off load prior to exiting aircraft. Load did not hang up. Damage - broken wires on pulley and deployment bag.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Dull knife putting undue pressure on safety wire. When knife cut, the recoil of knife broke the wire and pulley fell from ceiling.

CONTINUED ON NEXT PAGE

ANALYSIS: 53

WHAT WAS THE MALFUNCTION?

Excessive force on the pulley caused by the dull knife, causing the wire to break.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Dull knife, pulley breaking, causing the cable to fall on load and pull off the parachute.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure sharp knife.
2. Ensure proper installation of pulley.
3. Standardize the pulley system.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 450 AGL	10. ACFT SPEED (Knots) 140 Knots	11. DZ ELEVATION (Feet) NA	12. SURFACE WINDS (Knots) NA	13. VISIBILITY (Feet/Miles) NA

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1100 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS	
			1	Gate 617
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE 68-Inch Pilot Parachute	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT Gate FS 617

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
The CDS release gate failed to cut. No damage incurred.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
The Western Gear static line retriever ran for approximately one second and quit. The limit switch was engaged. We found the limit switch out of tolerances.

CONTINUED ON NEXT PAGE

ANALYSIS: 54

WHAT WAS THE MALFUNCTION?

Western gear retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Static line retriever microswitch out of limits/cup not properly seated/
beaded chains/etc.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Inspect IAW maintenance and preflight procedures.
2. Design a new system.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141B	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 400 Feet AGL	10. ACFT SPEED (Knots) 150 Knots	11. DZ ELEVATION (Feet) 289	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 5 Miles
III. CARGO				
23. TYPE LOAD AND WEIGHT CDS (A-22) 940 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 1 x G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 1390
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) At the 10 second call, the remote control box was armed. At green light, the on/off switch was put to on and nothing happened. After a quick scan of the settings, the primary loadmaster released and tried the switch again and then pushed on the box to check connections. The winch started to rewind, then red light was called. Since the gate had not cut and released, the primary loadmaster released the swtich and the malfunction checklist was accomplished.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The retriever winch remote control assembly had an intermittant connection.				

CONTINUED ON NEXT PAGE

ANALYSIS: 55

WHAT WAS THE MALFUNCTION?

Gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improperly seated remote control box assembly.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Proper preflight of control box.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT HC-130P	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 3500 Feet	10. ACFT SPEED (Knots) 125 KIAS	11. DZ ELEVATION (Feet) Sea Level	12. SURFACE WINDS (Knots) 180/10	13. VISIBILITY (Feet/Miles) 5 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT RAMZ Boat 600 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS 1	NO. CONTAINERS 1	Man Gate
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER T-10C (2)	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 800

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

5 seconds after exiting, parachutes separated from platform. One parachute inflated, floated away, and was lost. Other parachute recovered. Package impacted water and was destroyed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

120-inch riser stitching failed. Riser was locally-manufactured on base. TO 13C7-49-11 says riser should be sewn with 6-cord thread. The failed riser was sewn with 3-cord thread. Riser stitching could not support weight of package and tore out.

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ANALYSIS: 56

WHAT WAS THE MALFUNCTION?

120 riser failing.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improperly locally manufactured riser.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Follow proper procedures in TO 13C7-1-11.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1000	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 70 m	12. SURFACE WINDS (Knots) 7-9 Knots	13. VISIBILITY (Feet/Miles) Unrestricted
III. CARGO				
23. TYPE LOAD AND WEIGHT Door Bundle 250 Lbs	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-2/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER Door Bundle	27. TYPE PARACHUTE AND NUMBER T-10 Reserve Conver	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT NA
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)				
<p>The jumpmaster released the door bundle out of the port door. The static line broke free of the door bundle as expected breaking the 80 pound. However, the parachute did not extract from the pack tray at all while in the air. The door bundle (containing ammo cans full of sand) was destroyed. The parachute was slung open upon impact. No log record book was recovered at the site.</p>				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)				
<p>The 80 pound cotton textile (doubled) pack opening breakcord, broke. However, the running ends of the pack opening breakcord were not routed through the static line pack opening loop correctly. Instead, the pack opening loop was routed with the first set of doubled 80 pound on the breakcord. Thus the surgeon's knot and locking knot became jammed when it attempted to pass through the pack fastener, grommet and cones, the tray was subsequently unable to open.</p>				

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ANALYSIS: 57

WHAT WAS THE MALFUNCTION?

Parachute failed to deploy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper rigging procedures are followed.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 4160 MSL	10. ACFT SPEED (Knots) 130 KIAS	11. DZ ELEVATION (Feet) 3680	12. SURFACE WINDS (Knots) 230/10	13. VISIBILITY (Feet/Miles) Unrestricted

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS, Single 800 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER CDS Water Barrels	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE 68-Inch Pilot Parachute	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 580/PL 617

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Malfunction occurred on single CDS. At green light, right retriever ran for one second, but gate failed to cut. Eighty-pound ties also were not cut. No damage or injury occurred.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 LM evaluator, QA inspector, rigging LM, and maintenance inspected load and retriever. It was determined that the retriever worked properly with no load, but cut off at one second when under the load. The shut-off microswitch was not engaged when the retriever cut off. Electric shop was called to troubleshoot.

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ANALYSIS: 58

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible 3-second timer switch failed at 1 second.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Inspect IAW maintenance and preflight procedures.
2. Design new system.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 600A	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 1424	12. SURFACE WINDS (Knots) 250 @ 4	13. VISIBILITY (Feet/Miles) Clear

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 600 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot Ring Slot	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 530

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Upon green light, the static line failed to activate, therefore the type XXVI nylon release gate did not cut.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 The cause of this malfunction could not be determined. Maintenance performed an operational check with no discrepancies noted. The Western Gear Retriever is an on-going problem within our airdrop system.

CONTINUED ON NEXT PAGE

ANALYSIS: 59

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Microswitch out of adjustment/beaded chains/cup not seated/etc.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Inspect IAW maintenance and preflight procedures.
2. Design new system

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1173A	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 1424	12. SURFACE WINDS (Knots) 190 @ 5	13. VISIBILITY (Feet/Miles) Clear
III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 600 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot Ring Slot (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 550
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) The suspected cause of this malfunction was the guillotine knife becoming entangled in the A-22 sling momentarily. Upon releasing itself, it created a slingshot action which caused the safety wire to break on the pulley and fall on top of the load.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) The static line retriever worked as advertised. Once the gate cut the pulley and the knife fell on top of the bundle. The 95 inch pulley strap and clevis remained intact. The bundle exited with no problems. After the drop the loadmaster discovered that the safety wire on the pulley was broken.				

CONTINUED ON NEXT PAGE

ANALYSIS: 60

WHAT WAS THE MALFUNCTION?

Guillotine knife caught A-22 sling breaking safety wire allowing pulley and knife to fall on load.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Knife hanging up on A-22 webbing.
2. Knife not sharp.
3. Angle of pulley to bundle.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure webbing tight, knife sharp, and proper separation of pulley to bundle.
2. Safety issue. Broken parts loose inside aircraft institutes a safety hazard. There are no standard procedures to manufacture or develop a pulley for a CDS mission. AF needs to design and implement a standard CDS kit.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) 240/3	13. VISIBILITY (Feet/Miles) 9+
III. CARGO				
23. TYPE LOAD AND WEIGHT CDS x 1 WT 1400	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 Chapter 9	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 495
31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.) This was a single CDS using the right static line retriever (Western Gear). Gate failed to cut. Retriever winch ran until the slack was removed then the winch stopped failing to break the 80 pound tie. Pulley rigged at FS 550. No damage.				
32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.) Investigation revealed rewind limit switch was out of adjustment.				

CONTINUED ON NEXT PAGE

ANALYSIS: 61

WHAT WAS THE MALFUNCTION?

Rt Western Gear static line retriever failed to cut release gate rigged @ FS 550.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Retriever winch was cut off as soon as slack was removed, due to pull-angle activating microswitch. Investigation revealed rewind limit switch was out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Do not use Rt static line retriever forward of FS 617. Institute depot level static line retriever inspections after a specific number of uses, i.e., twenty or fifty.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1100	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 6 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Mass CDS 3680 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 4	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 617

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Gate failed to cut. This was a four bundle mass CDS w/CVR, right stack, left retriever (Western Gear). Retriever activated, then stopped when slack was removed, failing to break 80 pound tie. No damage.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Investigation revealed that the rewind limit switch was out of adjustment.

CONTINUED ON NEXT PAGE

ANALYSIS: 62

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Adjust microswitch IAW TOs.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1029	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26- Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 550

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

This incident happened with a single CDS non-CVR. At green light the system activated normally, however the gate took nearly 3 seconds to cut. The load exited normally. During clean-up, the crew could not find the guillotine knife. The quick disconnect was still attached to the SL retriever cable and showed no evidence of damage. No part of the knife assembly was left in the quick-disconnect. Quick-disconnect worked properly with another knife. Knife not recovered.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

The loadmaster (highly qualified) said it appeared the cable snapped hard against the top of the airplane when the gate cut, but did not notice the knife disconnecting. Knife was reported sharp. Suspect that when the knife/quick-disconnect struck the top of the aircraft the spring compressed allowing the knife to fall out. The time it took for the gate to cut may indicate that the gate was not totally tight or the knife was not really sharp causing the cable to snap upward more forcefully than usual.

CONTINUED ON NEXT PAGE

ANALYSIS: 63

WHAT WAS THE MALFUNCTION?

Incident not a malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Gate not taut or knife not sharp.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Sharp knife, tight gate.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650A	10. ACFT SPEED (Knots) 130 KTS	11. DZ ELEVATION (Feet) 590 FT MSL	12. SURFACE WINDS (Knots) 220/5 KTS	13. VISIBILITY (Feet/Miles) 5 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1400 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE 68-Inch Pilot Parachute (1)	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT FS 550

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
CDS gate did not cut.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
At green light, the static line retriever rewound for approximately 1 second. However, the static line retriever limit switch was activated prior to gate cut which stopped the retriever. The CDS gate did not cut.

CONTINUED ON NEXT PAGE

ANALYSIS: 64

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Beaded chains/cup not properly seated.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Inspect and follow proper procedures.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 372	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Unrestricted

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1045	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 550

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Gate failed to cut. Retriever ran intermittently (retriever cut on and off when the cable bounced) 80 pound tie never broke. No damage to aircraft or equipment.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Microswitch was out of adjustment.

CONTINUED ON NEXT PAGE

ANALYSIS: 65

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Microswitch out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Adjust microswitch.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130E	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 650A	10. ACFT SPEED (Knots) 130 KTS	11. DZ ELEVATION (Feet) 590 FEET MSL	12. SURFACE WINDS (Knots) 220/5 KTS	13. VISIBILITY (Feet/Miles) 5 MILES

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 1400 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11 Chapter 9	25. AERIAL DELIVERY SYSTEM USED		
		<input type="checkbox"/> DUAL RAIL	<input checked="" type="checkbox"/> CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 1	
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E	28. SIZE EXTRACTION/RELEASE PARACHUTE NA	29. LENGTH OF REEFING LINE NA	30. POSITION OF LOAD IN AIRCRAFT FS 550

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

CDS gate did not cut.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

CDS actual drop. At green light the static line retriever rewound for approximately 1 second but the static line retriever limit switch was activated prior to gate cut. This stopped the retriever. The CDS gate did not cut. Aircrew completed the malfunction checklist.

CONTINUED ON NEXT PAGE

ANALYSIS: 66

WHAT WAS THE MALFUNCTION?

CDS gate failed to cut.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Static line retriever limit switch engaged after approximately 1 second. Gate was rigged @ 550 but report does not state left or right receiver.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Do not use right retriever forward of FS 617. Ensure retriever is properly adjusted and preflighted.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME
9. ACFT ALTITUDE (Feet) 1100	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet) 475	12. SURFACE WINDS (Knots) 10	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT Mass CDS/ 3720	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 4	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER 26-Foot High Velocity (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 617

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Gate failed to cut. This was a 4 bundle mass CDS w/CVR. At green light retriever ran until the slack was removed then quit. Western Gear retriever

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Investigation revealed that the cup would become unseated when the cable tightened. Tested using double 80 pound between bar of knife and a tie down ring. Clutch was out of adjustment. Clutch replaced.

CONTINUED ON NEXT PAGE

ANALYSIS: 67

WHAT WAS THE MALFUNCTION?

Western gate static line retrievers failed to cut the type XXVI release gate.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Micro was out of adjustment.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Adjust microswitch.

TAR&M/SA VOL II

I. GENERAL				
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.
6. OPERATION/EXERCISE		7. DZ AND LOCATION	8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 650 AGL	10. ACFT SPEED (Knots) 150 IAS	11. DZ ELEVATION (Feet) 289	12. SURFACE WINDS (Knots) 110 @ 7	13. VISIBILITY (Feet/Miles) 7 Miles

III. CARGO				
23. TYPE LOAD AND WEIGHT CDS 940 LBS	24. RIGGED IAW (TM/TO/NAVAIR No.) FM 10-500-3/ TO 13C7-1-11	25. AERIAL DELIVERY SYSTEM USED		
		DUAL RAIL	CDS RELEASE GATE	OTHER (Explain)
		NO. PLATFORMS	NO. CONTAINERS 4	CVR
26. TYPE PLATFORM/AIR-DROP CONTAINER A-22	27. TYPE PARACHUTE AND NUMBER G-12E (1)	28. SIZE EXTRACTION/RELEASE PARACHUTE 68-Inch Pilot Parachute	29. LENGTH OF REEFING LINE	30. POSITION OF LOAD IN AIRCRAFT 1

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Doors failed to open the ADS position. Opened approximately 90 percent. A no drop was accomplished and aircraft RTB.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Mechanical problem within the door system.

CONTINUED ON NEXT PAGE

ANALYSIS: 68

WHAT WAS THE MALFUNCTION?

1. Aircraft problem.
2. Doors failed to open properly.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

NA

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

NA

PERSONNEL MALFUNCTION REPORTS AND ANALYSES

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT Twin Otter	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12,500	10. ACFT SPEED (Knots) 100 Knots	11. DZ ELEVATION (Feet) 250 Feet AGL	12. SURFACE WINDS (Knots) 5 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC4 Main and Reserve, Helmet, Altimeter		16. JUMPER'S POSITION IN ACFT 3rd Pass #3	
17. TYPE PARACHUTE (Specify) MC4	18. TYPE MALFUNCTION				19. NO. JUMPS +/- 35 (?)
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Reserve Deployed	
20. TYPE OF RESERVE MC4	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Jumper exited normally, fell flat and stable, and went into pull sequence at 4,100 feet AGL. Jumper was unable to locate the main ripcord after two (2) attempts and initiated cut away procedures.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 After interviewing the jumper, it was determined the jumper had worn the container extremely loose (especially the chest strap). Therefore, the main ripcord ended up on the right side of the jumper completely out of his reach. After his second attempt, he cut away. The main parachute never left the container and the jumper initiated emergency procedures before the AR2 activation altitude.

CONTINUED ON NEXT PAGE

ANALYSIS: 1

WHAT WAS THE MALFUNCTION?

Incident not a malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper wearing (fitting) of harness; jumper's lack of experience.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Reinforce proper fitting during pre-jump and during JMPL.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT Twin Otter	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12,000 feet AGL	10. ACFT SPEED (Knots) 100 Knots	11. DZ ELEVATION (Feet) 250 Feet AGL	12. SURFACE WINDS (Knots) 2 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC4, Ruck, 02		16. JUMPER'S POSITION IN ACFT 1st/8 of 9	
17. TYPE PARACHUTE (Specify) MC4	18. TYPE MALFUNCTION				19. NO. JUMPS Unknown
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Reserve Deployment	
20. TYPE OF RESERVE MC4	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Jumper exited normally, fell flat and stable, went into pull sequence at the prescribed altitude and was unable to locate the main ripcord. Three attempts were made unsuccessfully and the jumper went into emergency procedures. No damage or equipment losses.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 After interviewing the jumper and inspecting his equipment, it was evident that he had a floating main ripcord. On his initial pull, he grabbed the 02 hose first, then the main lift web, then traced the main cable housing to no avail. He then went into emergency procedures by pulling his reserve ripcord only (not the cut away pillow). The main parachute remained in the container and the AR2 did not actuate. This should be considered an incident not a malfunction.

CONTINUED ON NEXT PAGE

ANALYSIS: 2

WHAT WAS THE MALFUNCTION?

Floating ripcord.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Undetermined.
2. Possible impact with another jumper or pulling when he pulled O2 hose during second attempt.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Limit the number of jumpers on smaller aircraft and have better equipment check prior to exit.
2. Re-enforce emergency procedures during pre-jump.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 7800 Feet AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 5200 Feet MSL	12. SURFACE WINDS (Knots) 15 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC-5, AR-2, M-16, ALICE Pack, Helmet		16. JUMPER'S POSITION IN ACFT Second/First	
17. TYPE PARACHUTE (Specify) MC-5	18. TYPE MALFUNCTION				19. NO. JUMPS 28
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Bag Lock, Dual Main/Reserve Deployment	
20. TYPE OF RESERVE MC-5	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Student was performing a day HALO equipment jump. Jumper's exit and freefall were performed with no problems noted. Jumper performed prebriefed pull sequence and upon parachute deployment identified a bag lock. Jumper took appropriate emergency procedures and it was during this time that the AR2 fired, deploying reserve parachute. The main parachute fully inflated. During this time the reserve parachute with deployment bag became entangled with the main parachute's suspension lines. Reserve parachute never deployed from deployment bag. Jumper could not reach reserve parachute and landed with the reserve parachute entangled in the main suspension lines. No problems noted on landing.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Both main and reserve parachutes were inspected by base riggers. Parachutes were found IAW TOs and applicable directives. Possible premature firing of AR2. AR2 was attached to reserve parachute. AR2 was tested repeatedly and found to be operating IAW applicable directives.

CONTINUED ON NEXT PAGE

ANALYSIS: 3

WHAT WAS THE MALFUNCTION?

Bag lock.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Pack IAW applicable TMs.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 7800 Feet AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 5200 Feet MSL	12. SURFACE WINDS (Knots) 130 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC-5, AR2, M-16, Ruck, Helmet		16. JUMPER'S POSITION IN ACFT Second/First	
17. TYPE PARACHUTE (Specify) MC-5	18. TYPE MALFUNCTION				19. NO. JUMPS 32
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Dual Deployment	
20. TYPE OF RESERVE MC-5	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Pelvic Injury		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper was performing a day HALO equipment jump. The MC-5 parachute system was fitted with the AR2 automatic opening device and was attached to the reserve. Jumper's deployment and freefall were normal with no problems noted. At prebriefed altitude 3500 AGL, the jumper performed deployment sequence. The main parachute deployed with normal opening sequence. then jumper felt the reserve deploy. Both parachutes became fully inflated, opposing each other and down planing until the jumper hit the ground. Jumper was not able to perform emergency procedures due to his hands being in the suspension lines. Jumper did not cutaway and landed with both canopies. Jumper landed at high rate of descent and suffered injury to his pelvic area.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Initial investigation shows that the AR2 is suspected of malfunctioning. On-going investigation to follow.

CONTINUED ON NEXT PAGE

ANALYSIS: 4

WHAT WAS THE MALFUNCTION?

Dual deployment.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Improper AR2 setting.
2. Prescribed pull altitude too low for AR2 setting.
3. Grommets on AR2 pocket caused greater pressure on AR2.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure jumpers are trained properly.
2. Increase distance between AR2 setting and pull altitude.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1000 Feet	10. ACFT SPEED (Knots) 135+ Knots	11. DZ ELEVATION (Feet) 250 MSL	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Night Combat Equipment		16. JUMPER'S POSITION IN ACFT 1st/2nd	
17. TYPE PARACHUTE (Specify) T-10C	18. TYPE MALFUNCTION				19. NO. JUMPS 14
	<input checked="" type="checkbox"/> SEMI-INVERSION	<input type="checkbox"/> INVERSION	<input type="checkbox"/> CIGARETTE ROLL	<input type="checkbox"/> OTHER (SPECIFY)	
<input type="checkbox"/> PILOT CHUTE	<input type="checkbox"/> BLOWN SECTION	<input type="checkbox"/> BROKEN SUSPENSION LINE			
20. TYPE OF RESERVE 24 Ft Res	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Jumper stated that he had a good exit, then noticed that he did not feel an opening shock. During his second point of performance, the jumper noticed that he had a cigarette roll. Jumper stated that his body was sideways and his left leg was being held up by his left riser which was routed underneath his left leg. Jumper activated his reserve using the pull drop method for a total malfunction. The jumper then stated that his reserve pack opened and the spring popped out, but the canopy did not deploy. He then grabbed as much of the canopy as he could and attempted to execute deployment for a partial malfunction, using the down and away method. Jumper stated that canopy blew back in his face. The jumper then attempted to rake out suspension lines. Jumper stated that his main canopy started to inflate and deflate. He could see that his left riser was stuck under his left leg and that all of the suspension lines were twisted all the way to his canopy. He also stated that he tried to get the twists by using the bicycle technique and that is was difficult to do because he as somewhat sideways and upside down. Jumper stated that he managed to get all the twists out around 100 feet off the ground.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 A 100 percent technical rigger inspection was performed on the parachute. A 9-inch tear on gore #23, section #5, was detected, but did not contribute to the malfunction. It is believed that the jumper exited the aircraft in a head down position causing him to flip through the risers (during the inspection we had to flip the pack tray back through the riser for proper layout). The cause of the malfunction was poor body position on exit. The jumper stated that his left leg was trapped inside his left group of risers, which caused the left side of the parachute to be uneven with the right side.

CONTINUED ON NEXT PAGE

ANALYSIS: 5

WHAT WAS THE MALFUNCTION?

Partial malfunction due to twist in canopy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Weak or improper exit.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Reinforce emergency procedures and proper exit during pre-jump procedures.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250 Feet AGL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 540 AGL	12. SURFACE WINDS (Knots) 0 to 4 Knots	13. VISIBILITY (Feet/Miles) 10 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Kevlar, LCE		16. JUMPER'S POSITION IN ACFT 6th/#1 rt dr	
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION				19. NO. JUMPS 40
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	PLF	
20. TYPE OF RESERVE 24 ft troop chest reserve	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Lower back		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Jumper was injured while performing his fifth point of performance. All equipment functioned as designed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 The cause of this incident is jumper failed to perform a proper PLF.

CONTINUED ON NEXT PAGE

ANALYSIS: 6

WHAT WAS THE MALFUNCTION?

There was not a malfunction. This was an incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper PLF.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Reinforce PLF training during pre-jump.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CASA 235	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12,500 Feet AGL	10. ACFT SPEED (Knots) 90 Knots	11. DZ ELEVATION (Feet) 480 Feet MSL	12. SURFACE WINDS (Knots) 5 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None		16. JUMPER'S POSITION IN ACFT 1st/2nd	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 11
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Line Over	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After exiting the aircraft at 12,500 feet AGL, the jumper deployed the main canopy at 4,000 feet AGL stable. On deployment of the main canopy, the jumper noticed two suspension lines wrapping around the canopy. Jumper attempted to clear lines, when the canopy began to spin, he then performed emergency procedures. Jumper had a fully deployed reserve at 3,000 feet AGL and landed on the drop zone with no further incident.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

A 100 percent TRI was performed on the MC-4 main canopy during inspection, no burns were found on the canopy or suspension lines, but had two "D" lines wrapped around the 4th cell from tail to nose. Cause of malfunction was due to packing. During long fold the "D" lines were wrapped around and not centered in air channel.

CONTINUED ON NEXT PAGE

ANALYSIS: 7

WHAT WAS THE MALFUNCTION?

Line over.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper packing procedures/inspection procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Pack IAW procedures outlined in TMs.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT HC-130P	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 10,000 Feet	10. ACFT SPEED (Knots) 125 KIAS	11. DZ ELEVATION (Feet) 197	12. SURFACE WINDS (Knots) 285/11	13. VISIBILITY (Feet/Miles) 7 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Training Medical Kit		16. JUMPER'S POSITION IN ACFT Second Pass, 2/5	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS T: 47 Yr: 35
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Closed End Cell Hung Slider	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Broken Right Leg		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Upon opening parachute at 3500 feet, had a "snivel." Finally got under canopy at 2000 feet. Steered for a road but landed in 40-60 foot trees. Fracture/dislocation of right tibia/fibula on landing.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

HARP 2-3 seconds long. Due to "snivel", jumper did not get under canopy until 2000 feet so less time to steer. Jumper was new to unit and inexperienced. (Only 3 HALOs last 90 days.) Did not have experience to realize earlier that he was going into trees.

CONTINUED ON NEXT PAGE

ANALYSIS: 8

WHAT WAS THE MALFUNCTION?

Closed end cells/hung slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Insufficient information to assess.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Pay more attention to detail during packing.
2. Permiability check of canopy.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT MH-60	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1,500 Feet	10. ACFT SPEED (Knots) 70 Knots	11. DZ ELEVATION (Feet) 275 Feet High Point	12. SURFACE WINDS (Knots) 3-6 Knots	13. VISIBILITY (Feet/Miles) 7 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC1-1C Troop Back Parachute T-10R, Kevlar, BDUs, Boots		16. JUMPER'S POSITION IN ACFT #5 out of 6	
17. TYPE PARACHUTE (Specify) 35-Ft MC1-1C Troop Back	18. TYPE MALFUNCTION				19. NO. JUMPS 50+
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Towed Jumper	
20. TYPE OF RESERVE 24-Ft T-10R Troop Chest	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Sore back and neck		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Jumper was reported to have a clear exit from the aircraft. Jumpmaster witnessed the jumper falling away from the aircraft and the static line deploying, at which time he went back in the helicopter and exited jumper #6. Then realized that jumper #5 was being towed. The jumper stated that when he realized he was being towed, he attempted to get the attention of the jumpmaster or safety. They made verbal contact after they were over the trees at the end of the drop zone. After the jumpmaster notified the pilot, they began their descent to the ground. The jumpmaster stated that the suspension lines were coming up over the end of the deployment bag, (NOTE: The end with the static line attached) and the deployment bag was over the right shoulder of the jumper. Upon landing of the aircraft, the malfunction NCO, along with the DZSTL and medic were on location. The jumper had already released his canopy release assemblies upon coming in contact with the ground. The medic examined the jumper and no injuries were denoted. The parachute was secured and the primary jumpmaster was instructed to JMPI the soldier in his current configuration. No deficiencies were found. A systematic technical inspection was performed on the deployment bag and parachute with risers. Burns were found on the right riser group, both sides. Friction burns on the right set of suspension lines from the connector links up to 41 inches. Friction burns were found not only on both sides of the deployment bag, but also on the top. The cotton buffer of the static line where it attaches to the deployment bag had a 1/2-inch diameter cut along with minor friction burns on the cotton sleeve of the static line.

CONTINUED ON NEXT PAGE

<p>32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)</p> <p>The cause of the malfunction was a premature deployment of the deployment bag before the static line was fully elongated. Allowing the deployment bag to interact with both riser assemblies. The right riser group went around the right side of the deployment bag; the left riser group went around the left side of the deployment bag, causing the suspension line friction burn on the lines, deployment bag and static line. The right riser groups connector lines are what caused the cut in the cotton buffer on the static line. Two out of sixteen stows deployed with the suspension lines. Wrapping around the right side of the deployment bag and over the top (NOTE: the top is where the static line is attached). Creating enough tension to step the deployment of the suspension lines and causing the jumper to become towed. There are two suspected causes of this malfunction. First the premature deployment of the deployment bag is that the jumper came in contact with some part of the aircraft with his packtray. Which in turn caused his pack closing loop to break. Suggestions to prevent this incident from happening in the future is to insure that the aircraft is well padded and taped in all areas in which the jumpers are in contact with. Stress the importance of a proper exit, insuring that the jumpers clear the aircraft, to include their pack tray. Second suspected cause of this malfunction was that the static line was misrouted under the right riser. After evaluating the possibility it was clear to see how the connector link would come in contact with the static line (where it attaches to the deployment bag) and cause damage at the attaching point. Forcing the suspension lines over the end of the deployment bag. Problems with this conclusion are that the jumper activated the canopy release assemblies as the aircraft was landing so he could get out from under the aircraft. The static line did not have any friction burns. Suggestions to prevent this incident from happening in the future is to insure that the jumpmasters in the aircraft follow the correct procedures of inspecting the static line from the pack-closing loop to the static line snap hook.</p>
<p><u>ANALYSIS: 9</u></p> <p><u>WHAT WAS THE MALFUNCTION?</u></p> <p>Towed parachutist (rotary wing)</p> <p><u>WHAT COULD HAVE CAUSED THIS TO HAPPEN?</u></p> <p>Misrouted static line.</p> <p><u>WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?</u></p> <p>Pay better attention to detail during inflight jumpmaster procedures.</p>

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT Twin Otter	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 12,500	10. ACFT SPEED (Knots) 100 Knots	11. DZ ELEVATION (Feet) 250 Feet AGL	12. SURFACE WINDS (Knots) 4 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC4 Main and Reserve, Helmet and Gloves		16. JUMPER'S POSITION IN ACFT Pass 1/#3 of 6	
17. TYPE PARACHUTE (Specify) MC4	18. TYPE MALFUNCTION				19. NO. JUMPS 25
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Premature actuation of AR2	
20. TYPE OF RESERVE MC4	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited at 12,000 feet AGL and was flat and stable within 500 feet. At approximately 11,000 feet AGL, the jumper's reserve parachute deployed.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Upon inspection of the jumper's AR2, it had indeed fired prematurely. The AR2 was brought back to the rigging facility and tested IAW the applicable TM. The AR2 passed the first (fire) test but failed the second (no fire) test six consecutive times. A QDR has been submitted and disposition instructions are pending.

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ANALYSIS: 10

WHAT WAS THE MALFUNCTION?

Premature activation of AR2.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Defective equipment

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure AR2s are handled properly after issue.
2. Remove defective equipment from service.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-141	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 9,999 MSL	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 284 Feet	12. SURFACE WINDS (Knots) 350/07	13. VISIBILITY (Feet/Miles) Plus 7	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Rucksack and Weapon	16. JUMPER'S POSITION IN ACFT 1/1		
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 64 Halo
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Spinning w/lines over canopy	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited and was stable for a few seconds and then started to spin until pull altitude. He then pulled while in a spin which caused his lines to twist over the canopy causing a line over spinning malfunction. Jumper then cut away the main and landed safely.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Opening while in rapid spin.

CONTINUED ON NEXT PAGE

ANALYSIS: 11

WHAT WAS THE MALFUNCTION?

Line over canopy.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Unstable pull.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Pull when stable.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 17,500 MSL	10. ACFT SPEED (Knots) 130 KIAS	11. DZ ELEVATION (Feet) 4000 MSL	12. SURFACE WINDS (Knots) 5-8 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MA2-30/Gentex helmet/ TWIN 53/MBU 12P		16. JUMPER'S POSITION IN ACFT Jumpmaster	
17. TYPE PARACHUTE (Specify) MC-5 RAPS Freefall	18. TYPE MALFUNCTION				19. NO. JUMPS 60 MFF
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Floating Main Ripcord Grip	
20. TYPE OF RESERVE MC-5 RAPS	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY NONE		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The jumper was the last man in a stick of five. Jumper's goggles fell off his face as he was falling. The jumper tried to locate the main ripcord but could not find it because it was out of the elastic ripcord pocket (floating ripcord). The jumper tried to trace the main ripcord cable housing numerous times and failed to locate the main ripcord handle. The jumper then activated his reserve parachute by only pulling his reserve ripcord at 3000 feet AGL. The jumper did not pull the cutaway pillow on the main parachute. The jumper was under reserve canopy at 2500 feet AGL.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

After a thorough inspection of the parachute system, no problems were discovered.

CONTINUED ON NEXT PAGE

ANALYSIS: 12

WHAT WAS THE MALFUNCTION?

Floating ripcord.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Undetermined.
2. Possible contact during exit.
3. Jumper dislodged it himself.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Check equipment prior to exit.
2. Check ripcord during freefall prior to pull altitude.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-23	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 6,500 AGL	10. ACFT SPEED (Knots) 100	11. DZ ELEVATION (Feet) 760	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 7+	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER MC-5 Halo Parachute, Smoke Cannister-left leg		16. JUMPER'S POSITION IN ACFT N/A HALO	
17. TYPE PARACHUTE (Specify) MC-5	18. TYPE MALFUNCTION				19. NO. JUMPS 181
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Horseshoe	
20. TYPE OF RESERVE MC-5R	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY No Apparent Injury		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper was jumping an MC-5 with additional equipment-smoke canister bracket on left leg for a parachute demonstration jump. Four jumpers exited the ramp of a C-23 at 6500 feet AGL. The jumpers maintained a stable exit and transitioned into stable freefall until breakaway altitude of 4000 feet AGL. At breakaway altitude, all jumpers turned from the group and tracked away. The jumper transitioned to level freefall and pulled at 3000 feet AGL. The jumper was observed during his pull sequence in a stable level altitude. After he pulled, he felt himself go head down while parachute lines encircled his head. He performed a cutaway; the reserve deployed with one riser under his right arm. He cleared the riser and the reserve fully inflated at approximately 750 to 1000 feet AGL. He landed approximately 400 yards south of the DZ.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Jumper exit and freefall were normal. Jumper failed to clear over his right shoulder during pull sequence. Main canopy pilot parachute bridle line was half-hitched around top third of pilot parachute. Main canopy pilot parachute could not inflate. Main canopy was still in deployment bag with two locking stows on the suspension lines. No portion of the canopy or lines were entangled with smoke canister on jumpers left leg. Jumper landed with pilot parachute and main canopy still in deployment bag around his neck.

CONTINUED ON NEXT PAGE

ANALYSIS: 13

WHAT WAS THE MALFUNCTION?

Total horsehoe.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Possible unstable during pull.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper military freefall techniques are followed.
2. Inflate pull sequence at higher altitude.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT KC-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 2600 Feet	10. ACFT SPEED (Knots) 125	11. DZ ELEVATION (Feet) 0	12. SURFACE WINDS (Knots) 320/06	13. VISIBILITY (Feet/Miles) 7+ miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER UDT vest, fins, drysuit, ruck Protec		16. JUMPER'S POSITION IN ACFT 3rd pass/3rd	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS approx 80
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Low speed malfunction	
20. TYPE OF RESERVE MC-4 seven cell reserve	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Bruises		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 Diving exit, clear and pull as briefed, as jumper exited was head down, initiated pull sequence. As main parachute deployed, jumper started to flip through risers. Lines were appearing to tangle with intangle with fins. Initiated cutaway procedures. Reserve functioned properly. Bruises to left arm, bicep area.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)
 Jumper initiated cutaway procedures to prevent the development of greater malfunction possibly caused by flipping through the risers.

CONTINUED ON NEXT PAGE

ANALYSIS: 14

WHAT WAS THE MALFUNCTION?

It was an incident not a malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Adhere improper procedures.
2. Jumper exited at low attitude.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250 Feet	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) 4-7 Knots	13. VISIBILITY (Feet/Miles) 2 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Kevlar (Hollywood)		16. JUMPER'S POSITION IN ACFT #7	
17. TYPE PARACHUTE (Specify) T10C	18. TYPE MALFUNCTION				19. NO. JUMPS 2
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Partial, Net lock	
20. TYPE OF RESERVE MIRPS	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited aircraft, his main canopy did not fully deploy due to the fact the anti-inversion net was caught up. This caused him to fall faster than his fellow jumpers. He then activated his reserve for a partial malfunction and he then landed safely on the ground.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

After inspecting the parachute once the jumper was on the ground, I observed a safety wire approximately 3 inches in length routed through several suspension lines and squares in the anti-inversion net. Thus causing about 1/4 of the canopy to not inflate. Cause of malfunction is improper packing procedures.

CONTINUED ON NEXT PAGE

ANALYSIS: 15

WHAT WAS THE MALFUNCTION?

Partial.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Foreign matter in anti-inversion net.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Ensure proper packing procedures are followed.
2. Ensure proper inspection procedures are followed.
3. Ensure proper shakeout procedures are followed.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CASA 212	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 5,500 Feet	10. ACFT SPEED (Knots) 90	11. DZ ELEVATION (Feet) 480	12. SURFACE WINDS (Knots) 5	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None		16. JUMPER'S POSITION IN ACFT 1st/4th	
17. TYPE PARACHUTE (Specify) MC-4	18. TYPE MALFUNCTION				19. NO. JUMPS 21
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Refer to #31	
20. TYPE OF RESERVE MC-4	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper was performing a low altitude (5,500 feet AGL) grouping jump from the open door of a Casa 212. The jumper was the fourth to exit from the aircraft performing a diving exit. The jumper was stable and on heading at 5,200 feet AGL. At 4,100 feet AGL, he started his main pull sequence when his reserve canopy deployed. The jumper then executed his emergency procedures only pulling his main release handle. At 4,000 feet AGL, the jumper was under a fully deployed reserve canopy with the main canopy still in the deployment bag.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

A 100 percent inspection was performed on the MC-4 system and no deficiency was found. Upon further inspection, the AR2 (Automatic Activation Device) was found to have actuated. The AR2 was set at 2,000 feet MSL on the altitude dial. The AR2 was removed from the system and tested with regulation TM 10-1670-305-13&P and no deficiency was found. Statements were made by the jumpmaster that the jump off switch was not armed until well above the altitude dial setting.

CONTINUED ON NEXT PAGE

ANALYSIS: 16

WHAT WAS THE MALFUNCTION?

Premature activation of AR2.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Impact with aircraft.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Addressed in accident report.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) 4-7 Knots	13. VISIBILITY (Feet/Miles) 2 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER ALCE Pack, M1950 Weapons Case		16. JUMPER'S POSITION IN ACFT #6 Left Door	
17. TYPE PARACHUTE (Specify) T10C	18. TYPE MALFUNCTION				19. NO. JUMPS 1
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Reserve activation	
20. TYPE OF RESERVE MIRPS	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Lost 2 fingertips		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Reserve activation inside aircraft. The reserve ripcord grip was possibly caught on the end of a ladder which pulled the grip completely out of the pocket. The ripcord grip was found on the floor of the aircraft at the rear of the wheel well where the ladder was positioned. The spring was located under the inboard seats. As the jumper reached the jump door, the pilot parachute caught air and started to activate his reserve, prior to his reserve completely activating his main canopy also started to deploy. The jumper stated that his hands remained on the ends of his reserve. During the deployment phase of the reserve his fingers were caught in the suspension lines of his reserve causing the injuries he sustained to his fingers. The jumpmaster, safety and loadmaster said that they did not see that the jumpers reserve was activated. The jumper and the other jumpers on the aircraft also said that they did not see that the reserve was activated.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Reserve activation.

CONTINUED ON NEXT PAGE

ANALYSIS: 17

WHAT WAS THE MALFUNCTION?

It was an incident not a malfunction (reserve activation in aircraft).

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Undetermined.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

1. Protect ripcord grip at all times.
2. Perform better inspection of aircraft.
3. Jumpmaster and safety awareness.
4. Ensure better jumper awareness.
5. Recommendations made by 1st Battalion (Airborne), 5th Infantry, S-3 are as follows:
 - a. Recommend that the primary jumpmaster determine if the aircraft configuration meets safety standards and that air mobility command brief all airdrop crews to ensure all equipment is stowed away from egress routes of jumpers, with particular attention to potential hazards at ripcord grip level.
 - b. Recommend that all units which conduct airborne operations include “clear all egress routes to each jump door with emphasis on any potential hazards which may activate the reserve parachute” as a duty of the safety. The USAIC will incorporate this change into FM 57-220 and SH 57-1.
 - c. Recommend that a change to the color (from olive drab to white) of the pilot parachute of the MIRPS be coordinated through the directorate of combat developments (DCD), USAIS, as an engineer change proposal.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 3500L	10. ACFT SPEED (Knots) 140 KIAS	11. DZ ELEVATION (Feet) 0	12. SURFACE WINDS (Knots) 090/8	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER None		16. JUMPER'S POSITION IN ACFT Last Man	
17. TYPE PARACHUTE (Specify) MC5	18. TYPE MALFUNCTION				19. NO. JUMPS 10
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Hung Slider	
20. TYPE OF RESERVE MC5	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

After exiting aircraft and 3-5 seconds of freefall, member deployed main canopy per normal procedures. Upon canopy check, member noticed that the slider appeared to be hung up on the front right side of the canopy. Right side of canopy was not fully inflated. Member pumped both brake lines to the 100 percent position. Parachute still did not inflate fully. Member initiated cutaway procedures. Reserve parachute deployed properly. All equipment recovered with the exception of the reserve deployment bag.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Tension knot.

CONTINUED ON NEXT PAGE

ANALYSIS: 18

WHAT WAS THE MALFUNCTION?

Hung slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Tension knot.
2. Improper packing procedures.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper packing procedures are performed.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 5000 Feet AGL	10. ACFT SPEED (Knots) 130 KIAS	11. DZ ELEVATION (Feet) 200 Feet MSL	12. SURFACE WINDS (Knots) 5-8 Knots	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Helmet/MA2-30/UDT Vest		16. JUMPER'S POSITION IN ACFT #2 of 10	
17. TYPE PARACHUTE (Specify) MC-5 RAPS	18. TYPE MALFUNCTION				19. NO. JUMPS (15) MC-5
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY) Hung Slider	
20. TYPE OF RESERVE MC-5 RAPS		21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None	

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)
 SNM exited the right door of a C-130. The exit altitude was 5,000 feet AGL. SNM was the 2nd man in a ten (10) man stick to exit the aircraft. Upon exiting, SNM had twists in his suspension lines and risers. After completing the proper techniques to remove the twists, SNM noticed that his main canopy was not fully inflated. SNM stated that he recovered from the twists at approximately 4250 feet AGL. Once SNM noticed his canopy was not inflated properly he unstowed the brakes/control toggles and pulled them down to a full stall/full arm extension. He held this position for approximately 3-4 seconds before releasing. After attempting this procedure, the canopy still would not fully inflate, so SNM attempted the same procedure again. SNM's main canopy still would not inflate after pulling down the control lines for the second time. At approximately 3500 feet AGL, SNM noticed that his rate of descent was increased compared to the rest of his stick. SNM then began to spin to the left, and tried to counter this spin by pulling down on the right control toggle. SNM stated that he overcompensated and started spinning to the right and at this time SNM used the left control toggle to counter the spin. SNM stated his altitude at this point was 2800 feet AGL. SNM then determined at this altitude to cut away his main canopy. At approximately 2250 feet AGL, SNM was under the reserve canopy and landed safely on the drop zone with no injuries.

CONTINUED ON NEXT PAGE

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

After a thorough inspection of the main canopy, two (2) tears in the cotton buffer/sleeve sewn to the lower portion of the drogue slider control line was found. One of the tears found was in the center of the cotton sleeve and caused the sleeve to separate into two pieces. One portion of the sleeve was pulled up, and the lower portion was pulled down which caused the cotton material to bunch up in two spots on the control line. During deployment, the drogue slider control line was pulled taut because of normal deployment procedures. Once the drogue slider control line was pulled through the two grommets located at the top/center of the canopy, the two portions of the cotton sleeve which were torn, hung between these grommets. This would not allow the slider to fall to the lower position and allow the center cells of the main canopy to inflate. The slider was not in the lower position when the canopy was found. The reason for the tears in the cotton sleeve sewn to the lower portion of the drogue slider control line are unknown.

ANALYSIS: 19

WHAT WAS THE MALFUNCTION?

Hung slider.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Improper exit.
2. Improper packing.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Ensure proper procedures are followed for packing and exit.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1500 Feet AGL	10. ACFT SPEED (Knots) 169 TAS	11. DZ ELEVATION (Feet) 6500 Feet MSL	12. SURFACE WINDS (Knots) 2 to 4	13. VISIBILITY (Feet/Miles) Unlimited	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER LBE/LCE		16. JUMPER'S POSITION IN ACFT Unknown	
17. TYPE PARACHUTE (Specify) MC1-1C	18. TYPE MALFUNCTION				19. NO. JUMPS Unknown
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	torn section	
20. TYPE OF RESERVE T10R	21. RESERVE FUNCTIONED PROPERLY (if "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

The jumper stated: Upon exiting the aircraft he had an extremely violent opening shock. He did not count beyond "3000" because his parachute was fully inflated. When the parachutist checked his canopy he noticed multiple holes and tears to include (approximately) one 8 foot section missing. The jumper then checked his rate of descent as compared to the other jumpers and decided not to deploy his reserve. The jumper conducted a PLF and sustained no injuries.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Accelerated aircraft speed due to air density. Aircraft was flown by wing commander and true airspeed was necessary to maintain altitude. Another contributing factor is possible degradation of canopy material. The parachute has 47 jumps as indicated by the log record book.

CONTINUED ON NEXT PAGE

ANALYSIS: 20

WHAT WAS THE MALFUNCTION?

Blown section.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

1. Excessive airspeed.
2. High altitude.
3. Degradation of canopy material.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Test equipment for altitude usage.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT MC-130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 3500 Feet	10. ACFT SPEED (Knots) 130 Knots	11. DZ ELEVATION (Feet) 0	12. SURFACE WINDS (Knots) 110/10	13. VISIBILITY (Feet/Miles) 6 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER BDUs, Protec, Mask, LPU, Fins		16. JUMPER'S POSITION IN ACFT 1 Pass 1 Stick	
17. TYPE PARACHUTE (Specify) MT1XCCT	18. TYPE MALFUNCTION				19. NO. JUMPS
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE		
20. TYPE OF RESERVE MT1S	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumper exited the aircraft and counted to five before beginning main deployment procedures. Jumper pulled and cleared and felt no opening shock. Jumper cleared a second time and looked. From himpoint of view, it appeared to be sniveling. After no opening shock was felt after the second clear and look, jumper executed cutaway procedures.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Not enough altitude was afforded for jumper to wait out the snivel or pull down on suspension lines to free the snivel. Jumper then executed cutaway procedures.

CONTINUED ON NEXT PAGE

ANALYSIS: 21

WHAT WAS THE MALFUNCTION?

Not enough information.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Not enough information.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Not enough information.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT CH 47	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1500	10. ACFT SPEED (Knots) 90 Knots	11. DZ ELEVATION (Feet) 561 Feet	12. SURFACE WINDS (Knots) 0-3 Knots	13. VISIBILITY (Feet/Miles) Clear	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER Rucksack, LBV		16. JUMPER'S POSITION IN ACFT 1st and 6th	
17. TYPE PARACHUTE (Specify) MCI-1C	18. TYPE MALFUNCTION				19. NO. JUMPS 53/ Unknown
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Collision	
20. TYPE OF RESERVE T 10R	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY Fractured Heel		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Jumpers 1 and 6 on the second lift, first aircraft collided at 30 to 40 feet AGL. Jumper 6's rucksack was lowered and became entangled in jumper 1's parachute. Both parachutes collapsed. Jumper 1 sustained a fractured right heel. Jumper 6 was treated for bruises and released.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

No malfunction. Equipment worked fine. Jumper error.

CONTINUED ON NEXT PAGE

ANALYSIS: 22

WHAT WAS THE MALFUNCTION?

Incident.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

Improper canopy control.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Stress third point of performance during prejump.

TAR&M/SA VOL II

I. GENERAL					
1. UNIT BEING AIRLIFTED	2. DEPARTURE AIRFIELD	3. DATE	4. TYPE ACFT C130	5. ACFT SER NO.	
6. OPERATION/EXERCISE		7. DZ AND LOCATION		8. DATE AND TIME	
9. ACFT ALTITUDE (Feet) 1250	10. ACFT SPEED (Knots) 130	11. DZ ELEVATION (Feet)	12. SURFACE WINDS (Knots) Calm	13. VISIBILITY (Feet/Miles) 2 Miles	
II. PERSONNEL					
14. NAME (Last, First, MI), GRADE, SSAN, & UNIT		15. EQUIPMENT WORN BY JUMPER ALCE Pack M1950 Weapons Case		16. JUMPER'S POSITION IN ACFT 12th Jumper Right Door	
17. TYPE PARACHUTE (Specify) T10C	18. TYPE MALFUNCTION				19. NO. JUMPS 4
	SEMI-INVERSION	INVERSION	CIGARETTE ROLL	OTHER (SPECIFY)	
	PILOT CHUTE	BLOWN SECTION	BROKEN SUSPENSION LINE	Reserve Activation	
20. TYPE OF RESERVE MIRPS	21. RESERVE FUNCTIONED PROPERLY (If "No" explain in item 31) <input type="checkbox"/> YES <input type="checkbox"/> NO		22. RESULTING INJURY None		

31. DESCRIPTION OF MALFUNCTION/FAILURE/ DAMAGE INCURRED (if more space is needed, continue on reverse.)

Reserve activation inside aircraft. Jumpers reserve was caught on the pack tray of the jumper in front of him. The jumper in front of him turned and the movement caused the reserve to deploy. The jumper immediately secured it, sat down and was issued another reserve.

32. CAUSE OF MALFUNCTION/FAILURE (If more space is needed, continue on reverse.)

Jumpers were too close to one another inside the aircraft.

CONTINUED ON NEXT PAGE

ANALYSIS: 23

WHAT WAS THE MALFUNCTION?

This was an incident not a malfunction.

WHAT COULD HAVE CAUSED THIS TO HAPPEN?

The ripcord grip was not protected.

WHAT SHOULD YOU DO TO KEEP THIS FROM HAPPENING?

Stress the importance of protecting the ripcord grip during actions in the aircraft.

**SUMMARY OF
SUPPLY AND EQUIPMENT DROPS**

2ND TRIANNUAL CY 1998

	PLATFORM LOAD	SINGLE CONTAINER	CDS	TOTAL
Number of Drops	1882	48	1741	3671
Number of Malfunctions	25	3	19	47
Percentage of Malfunctions	0.132	0.062	0.010	0.204

Malfunction Phases:	IP	EF	IP	EF	IP	EF	IP	EF
Extraction	8	6	0	0	1	18	9	32
Deployment-Recovery	7	0	1	0	1	3	9	3
Release	0	0	0	0	0	0	0	0

IP-Incorrect Procedures

EF-Equipment Failure

**SUMMARY OF
PERSONNEL PARACHUTE JUMPS**

2ND TRIANNUAL CY 1998

		C-17	C-130	C-141	OTHER	TOTAL
Nonmaneuverable	Number of Deployments	0	38,448	30,928	1,942	71,318
	Number of Malfunctions	0	4	0	2	6
	Percentage of Malfunctions	0	0.104	0	0.102	0.084
Maneuverable	Number of Deployments	0	8,925	917	5,523	15,365
	Number of Malfunctions	0	1	1	1	3
	Percentage of Malfunctions	0	0.112	0.109	0.181	0.195
Free-Fall	Number of Deployments	8	1,377	23	3,961	5,369
	Number of Malfunctions	0	8	1	7	16
	Percentage of Malfunctions	0	0.059	0.140	0.177	0.030
Total	Number of Deployments	8	48,750	31,868	11,426	92,052
	Number of Malfunctions	0	13	2	10	25
	Percentage of Malfunctions	0	0.027	0.628	0.875	0.271

**SUMMARY OF
PERSONNEL PARACHUTE MALFUNCTIONS**

2ND TRIANNUAL CY 1998

	NON- MANEUVERABLE	MANEUVERABLE	FREE-FALL	RESERVE
Number of Deployments	71,318	15,365	5,369	18
Number of Malfunctions	5*	4*	17*	2*
Towed Jumper	1*	0	0	0
Broken Static Line	0	0	0	0
Entanglement	0	0	0	0
Failed to Inflate	0	1	2*	1
Inversion	0	0	0	0
Pilot Chute	0	0	0	0
Semi-inversion	0	0	0	0
Suspension Lines	0	0	2*	0
Other	4*	1	10*	2*
Percentage of Malfunctions	0.701	0.390	0.540	0.278
Fatalities	1*	0	0	1

*Injuries

**INJURIES OCCURRING ON PARACHUTE OPERATIONS
AS REPORTED ON DA FORM 285**

1 JANUARY - 31 MARCH 1998

	C-17	C-130	C-141	UNKNOWN	TOTAL
PLF-Related Injuries	0	4	1	29	34
Main Malfunction	0	0	0	0	0
Misrouting of Static Line	0	1	0	0	1
Entanglements	0	0	0	1	1
Tree Landings	0	0	0	1	1
In Aircraft	0	0	0	0	0
Hazards on Drop Zone	0	0	0	0	0
Other	0	2	0	0	2
Insufficient Information	0	0	0	1	1

TAR&M/SA VOL II

INJURIES OCCURRING ON PARACHUTE OPERATIONS
AS REPORTED ON DA FORM 285

1 APRIL - 30 JUNE 1998

	C-17	C-130	C-141	UNKNOWN	TOTAL
PLF-Related Injuries	0	6	3	24	33
Main Malfunction	0	0	0	0	0
Misrouting of Static Line	0	0	0	2	2
Entanglements	0	0	0	0	0
Tree Landings	0	0	0	4	4
In Aircraft	0	0	0	0	0
Hazards on Drop Zone	0	0	0	1	1
Other	0	0	0	2	2
Insufficient Information	0	0	0	2	2

AIRCRAFT MALFUNCTIONS

These malfunction reports are not included in the statistical data nor reflected in the percentage of malfunctions. All aircraft systems malfunctions which may have led to an abort or no-drop are constantly reviewed and analyzed for repeat or recurring trends and solutions. Corrective actions are recommended through Air Force maintenance systems.

PERSONNEL DROPS	
Improperly operating doors or ramps	0
Static line retriever	0
SUPPLY AND EQUIPMENT DROPS	
Rail locks	3
Improperly operating ADS	0
Improperly operating doors or ramps	0
Release mechanism	1
Electrical system	0
CONTAINER DROPS	
Rollers	0
Type XXVI gate	4
Static line retriever	12
TOTAL	20

HOT POOP

- 1. The next Malfunction and Review Board will be held at Fort Lee, Virginia on 24 - 25 February 1999.**

- 2. Change 2, FM 10-531/TO 13C7-54-1, Rigging Forklift Trucks, dated 20 June 1997, incorrectly identifies the 4,000-pound capacity forklift truck being rigged as the M271. The correct identification of the forklift truck shown is the MHE-270. The rigging procedures shown are for the MHE-270, 4,000-pound capacity forklift truck ONLY.**
 - a. This correction will be incorporated into the next change/revision to the subject manual. Rigging procedures for the M271 will be added at a later date.**

 - b. This correction has been coordinated through Mr. Paul Sutton, US Army Airborne and Special Operations Test Directorate, Fort Bragg, NC.**

- 3. There were two safety-of-use messages and three ground precautionary messages released during this time period. To gain access, please click on the appropriate title. They are as follows:**
 - a. Safety-of-Use Message: Cable Assembly, Coupling, 12/16/20/24/28 Foot.**

 - b. Safety-of-Use Message: Recommendation of Grounding the Modified Improved Reserve Parachute System (MIRPS).**

 - c. Ground Precautionary Message: Release, Cargo, Parachute, M-1.**

 - d. Ground Precautionary Message: Deployment Bag.**

 - e. Ground Precautionary Message: Use of the Extraction Force Transfer Coupling (EFTC).**