TO GO DIRECTLY TO THE TECHNICAL ORDER, CLICK ON THE CONTINUE BUTTON.

TO SEE THE SEGMENT INFORMATION CHANGE NOTICE, CLICK ON THE NOTICE BUTTON.

TO CONTACT THE TECHNICAL CONTENT MANAGER, CLICK ON THE CONTACT BUTTON.
WRITTEN CORRESPONDENCE:

HQ AFCESA/CEXF
ATTN: Fire and Emergency Services Egress Manager
139 Barnes Drive Suite 1
Tyndall AFB, Florida 32403-5319

E-MAIL: HQAFCESA.CEXF@tyndall.af.mil

INTERNET: HQ AFCESA Fire and Emergency Services PUBLIC WEB PAGE:

PHONE: (850) 283-6150
DSN 523-6150

FAX: (850) 283-6383
DSN 523-6383

For technical order improvements, correcting procedures, and other inquiries, please use the above media most convenient.
This page is provided to notify the user of any informational changes made to Technical Order 00-105E-9 in this Segment and the current Revision. Informational changes will be referenced in the Adobe Reader's Bookmark tool as a designator symbol illustrated as a `<C>` for quick reference to the right of the affected aircraft. The user shall insure the most current information contained in this TO is used for his operation. Retaining out of date rescue information can negatively affect the user’s operability and outcome of emergencies. If the user prints out pages his unit requires, the user shall print the affected page(s), remove and destroy the existing page(s), and insert the newly printed page(s) in the binder provided for that purpose. A Master of this TO shall be retained in the unit’s library for reference, future printing requirements and inspections.

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## NOTE

Chapter 31 contains emergency rescue and mishap response information for the following NATO aircraft:

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* Aircraft information pending
CHAPTER 31

NATO

OBSERVATION/RECONNAISSANCE

AEROSPACE EMERGENCY RESCUE
AND MISHAP RESPONSE INFORMATION

31-1. INTRODUCTION AND USE.

31-2. This section contains emergency rescue and mishap response information illustrations in alphabetic order relative to type and model of aircraft. This arrangement of illustrations is maintained from Chapter 4 throughout the remainder of the publication.

31-3. GENERAL ARRANGEMENT.

31-4. Aircraft type designation has been positioned in the upper right corner of the horizontal illustration for rapid identification. Additional aids to rapid orientation are:

   a. Recent technological advances in aviation have caused concern for the modern firefighter. Aircraft hazards, cabin configurations, airframe materials, and any other information that would be helpful in fighting fires, the locating and rescue of personnel will be added as the information becomes available.

   b. Suggested special tools/equipment are listed in the upper left corner, on the Aircraft/Entry page of each listed aircraft.

   c. Procedural steps covering emergency/normal entrances, cut-ins, engine/APU shutdown, safetying ejection/escape systems, and aircrew extraction are outlined on the left side of each page with coordinated illustrations on the right.

   d. Illustrations located on right side of pages are coordinated with text by numerals and small letters depicting both paragraph and subparagraph on the page.

   e. Each illustration is consistently colored and/or pattern keyed to highlight essential emergency rescue information.

   f. Details are pulled directly from the illustration to highlight an area, thus eliminating unnecessary searching for desired information.
SKIN PENETRATION POINTS

NOTE:
The Cessna Skymaster 337 is also formerly known as the USAF O-2. It is no longer in the active aircraft inventory.
**CESSNA SKYMASTER 337**

**T.O. 00-105E-9**

---

**SPECIAL TOOLS/EQUIPMENT**
- Power Rescue Saw
- Crash Ax

**AIRCRAFT ENTRY**

1. **NORMAL ENTRY**
   a. Rotate cabin door exterior handle, located right fuselage door, counterclockwise, and open door outward.

   **NOTE:**
   - Entry can only be made from right side of fuselage.

2. **EMERGENCY ENTRY**
   a. Rotate external door handle, if locked, break window and unlock door, rotate door jettison handle, located right forward of door frame, up and aft to remove door. (Applicable to early models.)

   **NOTE:**
   - On aircraft with recessed door handles, door must be unlocked from inside before door can be removed.

   b. Open exterior access door, located forward left fuselage under pilot’s window, pull handle to release window. (Applicable to later models.)

   **NOTE:**
   - To jettison pilot’s exterior access window, break window, remove plastic plate just behind pilot’s seat, pull handle forward, and pull window assembly down. Extra force may be required to pull the window assembly down.

3. **CUT-IN**
   a. Cut-in cabin enclosure as required.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Retard mixture control levers, located center engine control pedestal, to the aft and CLOSED position.
   b. Turn fuel selector switches, located top right side of cabin, to OFF position.
   c. Place magneto switches, located lower left corner instrument panel, to downward/OFF (earlier models) or counterclockwise/OFF (later models) position.
   d. Place battery/master switch, located lower left corner instrument panel, to downward/OFF position.

2. AIRCREW EXTRACTION
   a. Pull upward on seat travel adjusting lever, slide seat(s) aft to facilitate removal of crewmembers.
   b. Unlatch lap belt, remove shoulder harness and remove crewmember.
AIRCRAFT HAZARDS

FUEL CAPACITY:
1,508 GALS
(5,705 LITRES)

NOTE:
No armament is carried.
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Use main door, located on forward left side of fuselage.
   b. Use loading door, located on aft left side of fuselage.

2. EMERGENCY ENTRY
   a. Use main or loading doors.
   b. Use overhead escape hatch to gain entry into flightdeck and passenger compartment.
   c. Use emergency exit located at aft right fuselage to gain entry into passenger compartment.
   d. Use aircraft nose escape hatch. This hatch is used when aircraft is in the water.

3. CUT-IN
   a. Cut-in fuselage as required.
SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY

WARNING

Avoid the right propeller if engine is operating. Failure to use caution could cause injury or death to rescue personnel or anyone attempting to open the main entrance door.

a. Enter the aircraft by using the right forward fuselage door by turning the unlock handle to the open position. This door doubles as an emergency entrance marked with a yellow rescue arrow.

2. EMERGENCY ENTRY

a. Enter the forward overhead escape hatches, two located over the flight deck and two aft of the flight deck, by turning the release handle and sliding the hatch aft.

b. Enter the overhead aft escape hatch by rotating the unlock handle to the open position.

3. CUT-IN

a. Cut-in areas are the two side windows of the flight deck and the forward right side fuselage door.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Retard throttles, located on the overhead console, to the OFF position.
   b. Switch the emergency fuel/oil and hydraulic switches, located on the overhead console, to the OFF position.
   c. Switch ignition switches, located top center of flight instrument panel, to the OFF position.
   d. Switch battery switch, located on the overhead console, to the OFF position.

2. AIRCREW EXTRACTION
   a. Unlatch lap belt and remove shoulder harness from crewmember(s).
NATO AIRCRAFT COMPONENT

Aircraft Dimensions: Wingspan: 44.45 m / 145 ft 9 in
Length: 46.68 m / 152 ft 11 in
Height: 12.70 m / 41 ft 9 in
Rotodome Diameter: 9.1 m / 30 ft
Thickness: 1.8 m / 6 ft
Height: 3.35 m / 11 ft
Rotation: once every 10 seconds

Radar coverage: One E-3A flying at 30,000 ft / 9,150 m has over 312,000 km² in its field of view. Three E-3As in overlapping orbits can provide complete coverage of Central Europe. An E-3A can detect low flying targets within 400 km or 215 nautical miles; and at medium altitude targets within 520 km or 280 nautical miles.

Primary function: Airborne surveillance, command, control and communications.

Power plant: Four TF-33 Pratt & Whitney 100A turbofan engines.

Speed: More than 800 km/500 miles per hour.

Operational altitude: Above 9,150 m/30,000 ft.

Maximum take-off weight: 147,429 kg/325,000 lbs.

Fuel capacity: 89,610 liters / 70,371 kg 22,768 gallons/148,000 lbs.

Endurance: More than 10 hours (unrefueled). All air-refuelable.

Armament: None.

Aircrew: Flight crew 2 pilots, 1 navigator, 1 flight engineer
Mission crew 1 tactical director, 1 fighter allocator, 2 weapons controllers, 2 surveillance control officers, 3 surveillance operators, 1 communications operators, 1 communications technician, 1 radar technician, 1 computer display technician.
(Total number can vary for a specific mission.)

Prime contractor: Boeing Aerospace Co., Seattle, Washington, USA
AIRCRAFT HAZARDS

NOTE:
For additional information refer to Chapter 7 containing the USAF E-3 30/35.

DIMENSIONS:
LENGTH: 153 FT (46.61 METERS)
WINGSPAN: 146 FT (44.43 METERS)
HEIGHT: 42 FT 5 IN (12.93 METERS)

NOTE:
No armament is carried.
AIRCRAFT ENTRY

1. NORMAL ENTRY

NOTE:
Steps a and b doors: opening leads to slide deployment if set up. This maneuver is danger
free. Inflation is manually controlled.

a. To externally open entry door, located forward
and aft on left side of fuselage, pull handle
outward and rotate clockwise and pull door
outward.

b. To externally open galley door, located right
aft fuselage, pull handle outward and rotate
counterclockwise and pull door outward.

c. To externally open both overwing hatches,
pull the “Press Here” latch and push
hatch inward and lift up.

d. To externally open forward and aft right side
cargo doors, press the central button to release
the handle, then steer down the handle and push
the door forward.

e. To externally open the forward nose wheel door,
press the central button to release the handle,
then turn the handle to the left and push the trap
door up until the up-lock catch engages the door.

2. CUT-IN

a. Cut-in the three areas designated by the
“Cut here for emergency rescue”. 
1. ENGINE SHUTDOWN

a. Pull down the reverse lever, located on the center console.

b. Pull the power lever, located on the center console, backwards.

c. Pull down the starvation lever, located on the center console, into the bottom catch.

d. Pull all four emergency shut off valves, located on the overhead control panel.

e. For electrical shutdown: pull and steer the emergency power switch, located on the right side upper control console, to the OFF position.

f. Bend the red cover (mask) and steer the battery switch to the OFF position.
APU SHUTDOWN

1. APU SHUTDOWN

a. To shutdown the APU from the flightdeck, pull down the APU control switch, located on the right side of the flightdeck door, to the STOP position.

b. To shutdown the APU from the right main wheel well panel, pull the red lever to the down position.
1. **AIRCREW EXTRACTION**

**NOTE:**
Adjusting seats will better position crew members for extraction.

a. Adjust seats and disconnect crew members from their seats.

b. Disconnect passengers from their seats.

Use the following key to identify seat components for adjusting and disconnecting:

1. Harness unlocking
2. Horizontal adjustment lever
3. Vertical adjustment lever
4. Reclinable seat back lever
5. Harness adjustment latch
6. Reclinable seat back adjustment lever
7. Arm rest latch
8. Rotation control lever
9. Seat and base extraction lever
10. Diagonal seat adjustment pedal

**CABIN SEATING CONFIGURATION**

(MATCH SEAT NUMBERS FOR LOCATION)

- 1 AND 2: PILOT'S SEATS
- 3: THIRD CREWMEMBER'S SEAT
- 4: FLIGHT NAVIGATOR'S SEAT
- 5: OBSERVER'S SEAT
- 6 TO 19: OPERATOR'S SEAT
- 20, 21, 22: PASSENGER SEATS
The aircraft information is pending release.
AIRCRAFT HAZARDS

FUEL CAPACITY:
1342 GALS
(5080 LITRES)

FUEL TYPE:
JP-1 OR JP-5 (KEROSENE)

OTHER HAZARDS:
Alkalines
Asbestos
Bromochlorodifluoromethane (BCF Fire Extinguishant)
Bromotrifluoromethane (BTM Fire Extinguishant)
Cartridge Operated Equipment (Non-Armament)
Composite Materials (Man-Made Mineral Fibres)
Niemonic Steel (Heat Shields)

FUEL CAPACITY:
1342 GALS
(5080 LITRES)

FUEL TYPE:
JP-1 OR JP-5 (KEROSENE)

OTHER HAZARDS:
Alkalines
Asbestos
Bromochlorodifluoromethane (BCF Fire Extinguishant)
Bromotrifluoromethane (BTM Fire Extinguishant)
Cartridge Operated Equipment (Non-Armament)
Composite Materials (Man-Made Mineral Fibres)
Niemonic Steel (Heat Shields)
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. To open the access door, located on the left forward fuselage, push on upper part of door lever.
   b. Pull door lever to unlock door. Once released, the door opens outward and down.
   c. To open cargo door, located aft of passenger door, beware, this is the slowest way to enter the aircraft and better used as an exit during extraction. Enter through as a last resort.

2. EMERGENCY ENTRY

   NOTE:
   Cabin must be depressurized to open emergency exits.
   a. Break red cap on outside of aircraft, located above overwing emergency exit door.
   b. Push on button until exit opens inward.
   c. Lift and remove emergency exit door. Do not place door in egress path.

3. COCKPIT WINDOW ENTRY

   NOTE:
   Use this method when access door and emergency doors/exits are blocked.
   a. Break window glass with heavy object. Be careful not to hit occupants.
   b. Push button on internal unlock handle.
   c. Lift the internal unlock handle.
   d. Push sliding window backward in window track and enter through the opened window.

4. CUT-IN
   a. Cut-in as required.
ENGINE SHUTDOWN
1. ENGINE SHUTDOWN
   a. Pull the fuel shut-off valve handles, located on the forward center console, to the OFF position.
   b. Retard the throttles, located on the center console, to the STOP position by overriding the IDLE position.
   c. Place the battery switches, located on the overhead center console, number 1 and 2 to the OFF position.
**AIRCREW EXTRACTION, CABIN CONFIGURATION AND RESCUE ROUTES**

1. **AIRCREW EXTRACTION**
   a. Press button on the seat travel adjusting lever and move lever upward (if applicable).
   b. Slide seat aft to facilitate crewmember removal (if applicable).
   c. Unlatch lap belt, remove shoulder harness, and remove crewmembers and passengers.

2. **CABIN CONFIGURATION**
   a. Red highlites and arrows indicate where crewmembers and passengers are located.

3. **ESCAPE ROUTES**
   a. Primary route (solid line) indicates preferred and most used egress path out of access door.
   b. Secondary routes (broken line) indicates other egress paths used for overwing emergency exits and cockpit windows.
   c. Secondary routes is used if access door is blocked or warped during impact.
AIRCRAFT ENTRY

1. NORMAL ENTRY
a. To open the crew and passenger doors, located at the pilot’s and co-pilot’s position, use the door release handle.

2. EMERGENCY ENTRY
a. To enter the aircraft during an emergency, open the crew and passenger doors, located at the pilot’s and co-pilot’s position, by using the emergency door release handle.
b. Enter the aircraft through the emergency exits, located at each occupant position (4), 2 doors and 2 windows.

3. CUT-IN
a. Cut-in as required.

NOTE:
No armament is carried.
1. ENGINE SHUTDOWN

a. Turn all radios, located on the overhead console, to the OFF position.
b. Set the throttle, located forward left side, at 1300 RPMs.
c. Place the mixture lever, located forward center instrument panel, to the IDLE CUT OFF.
d. Turn magnetos, located forward of throttle, to the OFF position.
e. Place all switches on left side panel, to the OFF position.
f. Place the fuel selector, located aft of radios on overhead console, to the FUEL OFF position.

2. AIRCREW EXTRACTION

a. Disconnect crew and passengers from restraints.
AIRCRAFT PAINT SCHEMES
AIRCRAFT DIMENSIONS

- Height: 4.80 M
- Wing Span: 3.702 M
- Length: 12.55 M
- Length Between Wheels Base: 4.496 M
AIRCRAFT GENERAL INFORMATION

1. TACAN
2. FLIGHTDECK
3. ELECTRICAL APPARATUS ROOM
4. AERIAL VHF - UHF
5. OPERATOR CABIN
6. CONDITIONING UNIT
7. TURBOJET VIPER 526
8. AERIAL VOR - LOC
9. RUDDER
10. RUDDER CALIBRATOR
11. STABILIZER
12. MECHANICAL STABILIZER CALIBRATOR
13. ELECTRICAL STABILIZER CALIBRATOR
14. BRAKE PARCHUTE
15. HYDRAULICS UNIT CONTROL
16. SPOILER
17. FLAP
18. AILERON CALIBRATOR
19. AILERON
20. TIP FUEL TANK
21. WING FUEL TANK
22. AIR BRAKE
23. FRONT ENTRY DOOR
24. RADIO EQUIPMENT ROOM
25. BOOKS HOLDER COMPARTMENT
26. SLIDING NOSE
27. SURFACE SOCKET ENTRY PORT
28. CONTROL TRANSMISSION AND HYDRAULICS LINE ENTRY PORT
29. LANDING GEAR PORT
30. SPRAYMAT THERMOSTAT AND UNDERCARRIAGE EMERGENCY CONTROL CABLE ENTRY PORT
31. WING INNER SURFACE ENTRY PORT
32. MAIN LANDING GEAR FRONT PORT
33. FUEL ELECTRIC PUMPS ENTRY PORT
1. OIL - MOTOR CUP ENTRY PORT
2. ICE - INTERPRETER ENTRY PORT
3. WING INNER SURFACE ENTRY PORT
4. LANDING LIGHT ELECTRICAL CONNECTION ENTRY PORT
5. FUEL LEVEL PROBE AND DRAIN - PIPE CONNECTION AND ELECTRICAL CABLE LINE ENTRY PORT
6. TIP TANK INTERNAL ENTRY PORT
7. INJECTION PUMP ENTRY PORT
8. TANK FUEL VALVE ENTRY PORT
9. FUEL CUP ENTRY PORT
10. ENGINE CASING SCUTTLEBUTT ENTRY PORT
11. MOTOR FIRE EXTINGUISHING ENTRY PORT
12. STABILIZER CONNECTION ENTRY PORT
13. ELECTRICAL ACTIVATE OF THE CALIBRATORS ENTRY PORT
14. RUDDER CONTROL PANEL ENTRY PORT
15. GYROSCOPE COMPASS TRANSMITTER ENTRY PORT
16. HOIST SLING MOUNT ENTRY PORT
17. MAIN LANDING GEAR HATCH BACK
18. MOTOR OIL PUMP ENTRY PORT
19. ENGINE ENTRY PORT
20. THERMOCOUPLE ENTRY PORT
21. FRAME WORK STABILIZER ENTRY PORT
22. MECHANICAL CALIBRATOR TRANSMISSION CONTROL ENTRY PORT
23. STRUCTURE ENTRY PORT
24. ELEVATOR CONTROL SECTOR ENTRY PORT
25. FUSELAGE ROOM REARWARD ENTRY PORT
26. FUEL EXHAUST VALVE, FLAP CONTROL TRANSMISSION, FLAP POSITION AND SELECTION DEVICE, FLAP POSITION TRANSMITTER ENTRY PORT
AIRCRAFT GENERAL INFORMATION-Continued

1. FUEL TANK POINT OF DRAINAGE
2. JACK UP POINT
3. FUEL FILTER INSPECTION POINT
4. SOCKET FOR GROUNDING
5. PURCHASE AND TOW BACK POINT
6. FUEL DISCHARGE POINT
7. FUEL - FILTER
8. OIL MOTOR - FILLER
9. HOIST SLING POINT

- SHOCK ABSORBER 790 PSI
- 28 V-900A-START
- 28 V-200A-SERV

Diagram: Aircraft with various points labeled and shock absorbers marked.
AIRCRAFT ENTRY

1. NORMAL ENTRY/EXIT
   a. To internally open the door: when the door is closed and the door seal is pressurized, pull the door handle and rotate down to the OPEN position.
   b. To externally open the door: Pull the door handle and rotate downward.
   c. After waiting a few seconds and seal deflation is completed, fully pull the door inward.
   d. Strongly push (internally) or pull (externally) the door outward and leave the door in the maximum opened position so it will function as stairs.

2. NORMAL DOOR CLOSURE
   a. To close the door: pull/push up the door and push it inward. Place door lever in CLOSED position (first click - not locked), then again pull the door towards the external. Finally rotate the handle counterclockwise until the door is in the LOCKED position.

3. EMERGENCY EXIT
   a. HIDDING INTERNAL HANDLE PORT
   b. INTERNAL HANDLE
   c. TORSION TUBE
   d. RELEASE LEVER INTERNAL HANDLE DOWN
   e. LATCH
   f. SPRING
   g. EXTERNAL OPENING LEVER
   h. UNDERSIDE WINDOW SPIKE
   i. HOLE FOR UNDERSIDE WINDOW SPIKE
   j. SHEAR PIN FOR EMERGENCY EXIT
AIRCRAFT ENTRY - Continued

4. EMERGENCY ENTRY

a. Locate either the right or left emergency exit located over either wing.

b. Pull external handle, located at top center, outward to unlock emergency exit hatch.

c. Push emergency exit hatch inward, disengage hatch from opening hinges.

d. Place hatch away from passengers to avoid hindrance of rescue operations.

5. CUT-IN

a. Cut-in fuselage, cabin and flightdeck windows as applicable.
LANDING GEAR SAFETY PINS

1. LANDING GEAR SAFETY PINS

**WARNING**

Before engine shutdown, insert safety pin at landing gear. Failure to follow the this procedure will cause low hydraulic pressure possibly causing landing gear to close!

a. Safety pins are stowed in the books holder compartment at main entry door.

b. Install safety pin in nose landing gear.

c. Install safety pins in both main landing gears.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN

**WARNING**

Before engine shutdown, insert safety pin at landing gear. Failure to follow the above procedure will cause low hydraulic pressure, possibly causing landing gear to close.

**NOTE:**

See digital photos of cockpit components on page PD808.11.

a. Pull down idle detent, located on center console.

b. Retard throttle levers, located on center console, to FULL CLOSE position.

c. Pull down shut-off levers, located above throttle levers, to FULL CLOSE position.

d. Lift guard, located on center console above throttle levers, and push red button on top of shut-off levers to discharge fire extinguisher in engine nacelles.

e. Place battery master switch, located on overhead panel just right of lower center, to OFF position.

f. If necessary, to close the oxygen valve, located on the left side console, push down the green "T" handle.

2. AIRCREW EXTRACTION

a. The pilot and co-pilot, located on the flightdeck, can be extracted by disconnecting the safety belt and shoulder harness restraints.

b. The three passenger seats are located aft of the main entry stairwell. Extract passengers from seat by disconnecting the seat belt and, if applicable, the shoulder harness restraint.
1a. IDLE DETENTS

1b. THROTTLE LEVERS

1c. FUEL SHUT-OFF LEVERS AND FIRE EXTINGUISHER SWITCHES

1e. BATTERY MASTER SWITCH
EXTINGUISHING ENGINE FIRES

1. EXTINGUISHING ENGINE FIRES
   a. Extinguish engine fires through the engine intakes.
   b. Extinguish engine nacelle fire at access flap panels.
MINIMUM RADIUS OF CURVATURE

1. MAIN LANDING GEAR INTERNAL
2. NOSE LANDING GEAR
3. MAIN LANDING GEAR EXTERNAL
4. EXTREMITY OF EXTERNAL WING
5. FUSELAGE BULGE AND RADOME
6. EXTREMITY OF WING FUEL TANK
7. WING BULGE
AIRCRAFT HAZARDS

NOTE:
No armament is carried.
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Open crew entrance door, located on right side of fuselage, by actuating the door open lock pin.
   b. Rotate boarding ladder down, then enter.

   NOTE:
   Entry can only be made from right side of fuselage.

2. EMERGENCY ENTRY
   a. To jettison all four crew escape hatches, locate yellow arrow on either side of fuselage parallel to propellers, break glass and pull inside handle.

3. CUT-IN
   a. Cut-in cabin enclosure as required.

4. ENTRY COMPONENTS
   a. Life raft hatch
   b. Electronic compartment
   c. No. 4 operator’s escape hatch
   d. No. 3 operator’s escape hatch
   e. Operator’s compartment
   f. Pilot’s escape hatch
   g. Co-pilot’s escape hatch
   h. Pilot’s station
   i. Pilot’s compartment
   j. Co-pilot’s station
   k. No. 3 operator’s station
   l. No. 4 operator’s station
   m. Aft compartment
   n. Lower access hatch

CO-PILOT’S ESCAPE HATCH
PILOT’S ESCAPE HATCH
NO. 4 OPERATOR’S ESCAPE HATCH
NO. 3 OPERATOR’S ESCAPE HATCH

BREAK GLASS, PULL HANDLE INSIDE TO JETTISON OVERHEAD HATCH

OPPOSITE SIDE INDENTICAL
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN

   a. Place the mixture control lever, located on the center console, to IDLE CUT OFF position.

   b. Place the propeller control, located on the center console, to FEATHER/FULL decrease position.

   c. Close the emergency switches for engine fire if propeller is feathered.

   **WARNING**

   If opposite generator is functioning, feather propeller. If opposite generator has failed, do not feather. Retard propeller, using the throttles, located on the center console, to FULL decrease RPM.

   d. If required, place right and left fuel selectors, located above the center console, to OFF for engine fire with opposite generator failure.

2. AIRCREW EXTRACTION

   a. Disconnect crew and passengers at all four locations from seat restraints.
1. AIRCRAFT GENERAL INFORMATION

The SAAB S100B is a twin-engined low-winged aircraft of light metal construction with a straight wing profile. The aircraft's main task is radar reconnaissance and is then equipped with a radar PS890 which consists of a top-mounted antenna unit and requisite equipment in the cabin.

The S100B can, when it is demanded, be converted to a passenger aircraft. It is then stripped of its antenna and all radar equipment in the cabin. Seats are then installed in the cabin.

The PS890 radar equipment contains beryllium oxide which necessitates special actions upon firefighting and rescue work with regards to health risks.

The fuel tanks are integral (sealed plated areas).

The wing placed engines are of turboprop type with quad blade propellers. The aircraft is also equipped with an APU placed in the aft fuselage under the fin.

The radar reconnaissance version has a crew of two pilots and a maximum of five passengers. The passenger version has a crew of three and can seat thirty passengers.

The aircraft contains details made of composite material, mainly carbon and glass fibre. Composites demand special precautions and handling for firefighting and rescue work with respect to health risks and possible injuries.

Crew evacuation is primarily through passenger doors. There are four emergency exits, two on the right side and one on the left side, plus one in the flightdeck ceiling. The right emergency exit over the wing has limited access due to equipment fixtures in the cabin.

The aircraft is equipped with rapid fire extinguishing equipment for the engines, the APU, and the luggage compartment.

These procedures cover version differences only when the rescue work is affected.

Critical area: 2,810 FT² (261 M²)
AIRCRAFT HAZARDS

1. ENGINE AND APU HAZARDOUS AREAS

WARNING

Exhaust gases may cause injury due to heat, high velocity air, flying stones and debris, etc. Engine and APU danger area are forbidden areas to approach.
1. ANTENNAS HAZARDOUS AREAS
   (RADIO FREQUENCY RADIATION)

   WARNING

   Rescue personnel shall not stay inside the danger areas unnecessarily when the aircraft is connected to an external power supply or when the aircraft engine is running.

   2. ANTENNAS HAZARDOUS AREAS
      (RADIO FREQUENCY RADIATION)
      APPLICABLE FOR RADAR RECONNAISSANCE VERSION ONLY.

   NOTE:
   In order for the top-mounted antenna to transmit effect, the following two conditions must be met (1) nose gear tracted and (2) APU operational. If the two conditions are met, rescue personnel shall not unnecessarily remain within the danger area. See diagram below.
AIRCRAFT HAZARDS

DIMENSIONS
Length 69 FT (21 M)
Wing span 72 FT (22 M)
Take-off weight 28600 LB (13 Tons)
Height to wing-tips with extended landing gear 8.5 FT (2.6 M)
Height to wing-tips with retracted landing gear 5 FT (1.5 M)
Height to passenger door, loading door and front right emergency exit
  - extended landing gear 5.2 FT (1.6 M)
  - retracted landing gear 1.6 FT (0.5 M)
Height to emergency exit over the wing
  - height from wing 1.6 FT (0.5 M)
Height to air-intake 5.2 FT (1.6 M)

FUEL
Aviation turbine fuel (JP8) or Jet A1
Quantity 844 FT³ (3200 L)
6130 LB (2780 KG)

HYDRAULICS
Hydraulic fluid 021
Tank volume 1.32 FT³ (3.5 L)
Tank volume manual hydraulic pump 1.32 FT³ (5 L)
Pressure accumulator (4x0.09 FT³ (0.35 L) 4 pcs

NITROGEN PRESSURE
Landing gear 3 pcs
Tires 5 pcs
Hydraulic accumulators 4 pcs

OXYGEN
Mounted oxygen (GOX) container
(1x369 FT³ (1400 L) 1 pc
Portable oxygen cylinders 1x32 FT³ (120 L)
1x82 FT³ (311 L) 2 pcs

EXPLOSIVES
Separation bolt emergency jettison main landing gear
2x0.01 OZ (0.25 G)
AIRCRAFT ENTRY

1. NORMAL ENTRY-PASSENGER DOOR
   a. Turn passenger door handle, located on lower portion of door, counterclockwise to open door.
   b. Pull passenger door outward and then push the door forward.

2. EMERGENCY ENTRY-PASSENGER DOOR
   a. Turn passenger door handle, located on lower portion of door, counterclockwise to open door.
   b. Pull passenger door outward and then push the door forward.

3. EMERGENCY CEILING HATCH
   a. Turn hatch handle, located in flightdeck clockwise to unlock/open.
   b. Push the hatch fully open.

4. FORWARD EMERGENCY EXIT

NOTE:
   The forward right side cannot be used on the radar version.

   a. Turn the door handle, located on the lower portion of the door, counterclockwise to open.
   b. Push the door inward.

5. OVERWING EMERGENCY EXITS
   a. The right side exit opens by turning the door handle counterclockwise.
   b. The left side exit opens by turning the door handle clockwise.

6. CUT-IN
   a. Cut-in fuselage as required.
1. ENGINE SHUTDOWN

NOTE:
The following procedure is for emergency shutdown only. If possible, confer with the crew prior to activating emergency shutdown.

a. Pull the left and right engine fire T-handles, located on the overhead panel, down to the STOP position.

IN CASE OF ENGINE FIRE:

b. Place fire extinguishing switches in ON position, located next to fire T-handles, then pull fire T-handles down to extinguish corresponding engine fire.
1. AIRCREW EXTRACTION - RADAR RECONNAISSANCE VERSION

NOTE:
Restrains for the crew differ from the passengers.

FOR CREW SEATS:

a. Open/turn the harness retaining center lock in either direction to release harnesses.

b. Place the shoulder straps behind the seat and the lap straps at the side to prevent entanglement during extraction.

FOR PASSENGER SEATS:

c. Lift the release plate and open the lap harness straps.

d. Pull out the shoulder harness straps to release the arms of the passengers preventing entanglement during extraction.
AIRCREW EXTRACTION - Continued

2. AIRCREW EXTRACTION - PASSENGER VERSION

NOTE:
Restraints for the crew differ from the passengers.

FOR CREW SEATS:

a. Open/turn the harness retaining center lock in either direction to release harnesses.

b. Place the shoulder straps behind the seat and the lap straps at the side to prevent entanglement during extraction.

FOR PASSENGER SEATS:

c. Lift the release plate and open the lap harness straps.
AIRCRAFT HAZARDS

NOTE:
For additional information refer to Chapter 7 containing the USAF E-3 30/35.

DIMENSIONS:
LENGTH: 153 FT (46.61 METERS)
WINGSPAN: 146 FT (44.43 METERS)
HEIGHT: 42 FT 5 IN (12.93 METERS)

NOTE:
No armament is carried.

OTHER HAZARDS:
Battery acid
Arcton 12
Bromochlorodifluoromethane (BCF Fire Extinguishant)
Bromotrifluoromethane (BTM Fire Extinguishant)
Cartridge operated equipment
Chlorobromoethane (Fire Extinguishant)
Composite Materials (Man-made fibres)
Dimethylformamide (Strobe power pack)
Ethylene Glycol
Freon
Methyl Bromide (Fire Extinguishant)
Polytetrabluoroethylene
Radioactive sources
Sonar locator beacon(s) (1-Lithium battery)
Sulphur Hexafluoride SF6
Tritium light sources
Fuel: Avtur
Hydraulic oil: OM-15
High pressure gases: Nitrogen/Air
Engine oil: OX-9
Oxygen: GaseousLOX

MICROWAVE RADIATION: If main search radar is operating, no approach within 1/2 mile.

PRESSURIZED CABIN AND LOWER COMPARTMENTS

*STROBE LIGHTS
AIRCRAFT ENTRY

1. NORMAL ENTRY

**WARNING**

Escape slides are installed inside doors and deploy automatically when doors are opened from outside. Rescue crews need to stand aside when opening door to avoid deploying slide.

a. To open normal entry doors, pull handle out, rotate handle clockwise on port side (counterclockwise on starboard side), pull rear edge of door and push front in.

b. To open electronic and battery access door, press to release door and pull down to unlock.

c. To open cargo doors, press catch, rotate handle counterclockwise, push door in and slide forward.

2. EMERGENCY ENTRY

a. To open emergency escape hatches, push in panel and lift out.

3. CUT-IN

a. Cut-in the areas designated as required.
ENGINE AND APU SHUTDOWN

1. ENGINE SHUTDOWN

a. Pull down the reverse lever, located on the center console, to IDLE, then to CUT OFF position.

b. Place the APU start/run/stop switch, located on the right side of the flight deck door, in the STOP position.

In case of APU fire, pull the APU fire switch, located on the right side of the flight deck door.

In case of Engine fire, pull all four engine fire switches, located on the overhead control panel.

c. Raise the red guard for the battery switch, located on the flight engineer’s upper panel and place the battery switch in the OFF position.
1. **AIRCrew EXTRACTION**
   a. Unlatch seat belt and remove shoulder harness. Armrest on flight deck seats can be lifted up by pressing button at forward edge of armrest allowing ease of extraction.
   b. Unlatch seat belt of passengers.

2. **INTERNAL DOOR OPERATIONS**
   a. To open entry door at port side, pull handle aft, pull in front of door and push out aft.
   b. To deploy escape slides, put strap (1) into floor bracket (2), open door and pull initiation handle (3).
   c. Pull up on catch release for console tables.
   d. To unlock and open cargo door, (forward door illustrated), turn handle clockwise, pull door in and slide door forward.
   e. To open emergency escape hatches, pull in on both handles and pull hatch inside of aircraft but do not block egress path.
CABIN CONFIGURATION WITH CRASH LANDING AND LIFE RAFT ASSIGNMENTS

1. CABIN CONFIGURATION (UK VERSION)

NOTES:
1. If required, opens forward door and deploys slide.

2. First crewmember assigned odd numbered seat to reach left overwing hatch is to deploy life raft if required, and attach escape strap to wing fitting.

3. First crewmember assigned even numbered seat to reach right overwing hatch is to deploy life raft if required, and attach escape strap to wing fitting.

4. If required, opens aft door and deploys slide.

5. Normal duty assignment shown. If mission seating arrangements require, TD may reassign these duties. All personnel are to be briefed if any changes are made.

<table>
<thead>
<tr>
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<th>RIGHT LIFE RAFT</th>
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<tr>
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<td>41, 43, 45, 47</td>
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NOTE

Chapter 32 contains emergency rescue and mishap response information for the following NATO aircraft:

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<td>TUCANO T-1</td>
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* Aircraft information pending
CHAPTER 32

NATO

TRAINER

AEROSPACE EMERGENCY RESCUE
AND MISHAP RESPONSE INFORMATION

32-1. INTRODUCTION AND USE.

32-2. This section contains emergency rescue and mishap response information illustrations in alphano
terical order relative to type and model of aircraft. This arrangement of illustrations is maintained from
Chapter 4 throughout the remainder of the publication.

32-3. GENERAL ARRANGEMENT.

32-4. Aircraft type designation has been positioned in the upper right corner of the horizontal illustration
for rapid identification. Additional aids to rapid orientation are:

a. Recent technological advances in aviation have caused concern for the modern firefighter. Aircraft hazards, cabin configurations, airframe materials, and any other information that would be helpful in fighting fires, the locating and rescue of personnel will be added as the information becomes available.

b. Suggested special tools/equipment are listed in the upper left corner, on the Aircraft/Entry page of each listed aircraft.

c. Procedural steps covering emergency/normal entrances, cut-ins, engine/APU shutdown, safetying ejection/escape systems, and aircrew extraction are outlined on the left side of each page with coordinated illustrations on the right.

d. Illustrations located on right side of pages are coordinated with text by numerals and small letters depicting both paragraph and subparagraph on the page.

e. Each illustration is consistently colored and/or pattern keyed to highlight essential emergency rescue information.

f. Details are pulled directly from the illustration to highlight an area, thus eliminating unnecessary searching for desired information.
AIRFRAME MATERIALS AND GENERAL INFORMATION

CARBON COMPOSITES (Diagonal Shading)

AIRCRAFT DIMENSIONS
Length: 23.3 FT (7.10 METERS)
Wing Span: 28 FT (8.50 METERS)

NOTE:
No armament is carried.
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. To enter the cockpit, turn canopy unlock handle, located on top center of canopy, clockwise.
   b. First notch unlocks the canopy.
   c. Second notch opens the canopy.
   d. Slide canopy rearwards to expose the open cockpit.

2. EMERGENCY ENTRY
   a. Repeat normal entry steps.
   b. If canopy is jammed, cut in at canopy frame with power rescue saw.

3. CUT-IN
   a. Cut-in canopy glass on all four sides, lift glass off cockpit to expose crew.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Pull throttle, located on left side console, to the rearward position.
   b. Pull the push/pull control, located on pilot’s forward instrument panel, to the rearward position while depressing the inside push/pull control.
   c. Turn the key ignition switch, located on the center forward instrument panel, counterclockwise to the OFF position.
   d. Set the electrical switches, located on the upper left forward instrument panel, to the OFF position.
   e. Set the fuel tank shutoff valve, located on the center forward instrument panel, to the “essence fermee” position.

2. AIRCREW EXTRACTION
   a. Disconnect the crew’s legs by pulling the blue strap.
   b. Disconnect the crew’s shoulder harness, lap belt and crotch strap by pulling the red strap on the center buckle.
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

NOTE:
No armament is carried.

AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Use the passenger and crew entrance, located on the right side of the aircraft.

2. EMERGENCY ENTRY
   a. Use the passenger and crew entrance, located on the right side of the aircraft.
   b. Emergency exit is possible through the left side window.

3. CUT-IN
   a. Cut-in cabin enclosure as required.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Set lever for brakes, located on instrument panel right side facing forward.
   b. Place electrical equipment switches, located on overhead left panel, to OFF position.
   c. Place fuel mixture lever, located on instrument panel left side facing forward.
   d. Place magneto/master switch, located on overhead left panel, to OFF position.
   e. Secure the forward control stick only, located forward of pilot’s seat, with the pilot’s lap belt after releasing the belt.

2. AIRCREW EXTRACTION
   a. Release the crewmember’s three point release seat restraints.
SPECIAL TOOLS/EQUIPMENT

Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY

a. To enter the cockpit, place the canopy open switch, located on left side of fuselage, to the UP position.

2. MANUAL ENTRY

a. Crank manual handle, located next to canopy open switch, clockwise to open the canopy.

3. EMERGENCY ENTRY

WARNING

Avoid canopy impact area aft of aircraft. Death or injury may result from falling canopy after jettison.

a. Pull canopy jettison handle, located on left side of fuselage, out to the full length to jettison canopy.

4. CUT-IN

a. Cut-in canopy glass on all four sides along canopy frame.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Retard left throttle, located on left side console, by moving throttle outboard and then full aft.
   b. Turn the DC master switch, located on center console, to the center OFF position.

2. AIRCREW EXTRACTION
   a. Cut the canopy initiator hose, located behind the left crew seat at the canopy deck level.

   **WARNING**

   Both seat initiator hoses must be cut to safety/dearm the ejection system.

   b. Cut catapult initiator hose, located just behind the crew headrest.
   c. Disconnect lap and shoulder harness.
PILATUS PC-7

AIRCRAFT DIMENSIONS

HEIGHT
10 FT 6 IN
(3.21 METERS)

LENGTH
32 FT 1 IN
(9.78 METERS)

WINGSPAN
34 FT 1 IN
(10.40 METERS)
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Actuate the canopy actuator clutch, located at the forward left side corner of the canopy.
   b. Use the external canopy hand grip, located on the forward left side of the canopy and open the canopy.
   c. The internal canopy hand grip, located on the forward left side of the canopy, is used by the crew to open and close the canopy internally.

2. EMERGENCY ENTRY
   a. Use the external canopy jettison, located under the aft left corner of the canopy on the fuselage, to jettison the canopy.

3. CUT-IN
   a. Cut-in canopy glass on all four sides along canopy frame.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Pull the firewall shut off operating lever, located on the left side of the forward instrument panel, aft to the SHUTOFF position.
   b. Push the battery switch, located on the right console, down to the OFF position.
   NOTE: There is also a battery switch in the aft cockpit located in the same location. Use the forward cockpit battery switch as the primary battery shutdown switch.
   c. Do not actuate the reset switch, located on the right console right of the battery switch, unless electrical is required.

2. AIRCREW EXTRACTION
   NOTE: The harness release knob is located on the left side of the seat bucket. This is used to lock and unlock the inertia reel, located at the top of seat. It may be necessary to use this knob to release a locked up condition while preparing for extraction.
   a. Turn the central restraint buckle, located on the crewmember’s mid section when connected, to release the crewmember from the lap belt and shoulder harness restraints.
   b. Lay the restraints to the side to prevent entanglement during extraction.
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Unlock canopy, left side only, and pull canopy lock handle.
   b. Turn canopy lock handle and lift canopy up.
   c. Turn cabin door handle and pull door outward.

2. EMERGENCY ENTRY
   a. Use steps 1a thru 1c.

3. CUT-IN
   a. Cut-in cabin enclosure as required.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Pull fuel mixture control, located on center console, to IDLE CUT OFF position.
   b. Turn fuel selector valve, located on forward part of center console, to OFF position.
   c. Place ignition switches, located on the lower left side of the forward instrument panel, to the OFF position.
   d. Place battery switch, located on the lower center forward instrument panel, in OFF position.

2. AIRCREW EXTRACTION
   a. Unlatch lap belts and remove shoulder harnesses from crew members by rotating the rotary buckle in either direction. Remove restraints from crewmember(s).
   b. Release left or right survival kit buckles by squeezing release bar simultaneously.
1. NORMAL AND EMERGENCY ENTRY
   a. Unlock canopy using external canopy unlock lever, located at the upper center front edge of canopy, and rotate lever to release internal lock.
   b. Slide canopy aft on canopy sill rails.

2. CUT-IN
   a. Cut-in canopy glass on all four sides along canopy frame.

3. ENGINE SHUTDOWN
   a. Pull mixture control, located on throttle quadrant and left side of throttle, to FULL AFT position.
   b. Move fuel shut-off valve, located on aft right side of throttle quadrant, to the 9 o'clock position.
   c. Place battery/alternator switches, located at top center of instrument panel, to the OFF (down) position.

4. AIRCREW EXTRACTION
   a. Disconnect restraints from crew and passengers.
AIRCRAFT GENERAL INFORMATION

Aircraft 60 is a multi-seat, turbo-jet aircraft of light metal construction with top-placed wings and a fin-top tailplane.

It has dual control, with the pilots placed side by side in ejection-alternatively fixed seats.

It is available in three versions; primary trainer, attack, attack-reconnaissance.

The school version (SK60A) is equipped for primary flying-training.

The attack version (SK60B) is equipped for ground- and sea attack missions. The weapon-alternative is rockets.

The attack-reconnaissance (SK60C) version is equipped for both attack and reconnaissance missions with a nose-mounted reconnaissance camera type SKA29.

The SK60B and C can, when it is needed, be converted to school versions and be equipped with four fixed seats. Then they are not equipped with weapon equipment.

The fuel tanks (integral) are sealed compartments of which two are in the midbody section, and two in the wing.

The engines are of twin-spool type, named Rm 15, placed on each side of the fuselage and connected to straight air-intakes.

The engines have electrical start generators.

Instructions deal with differences between aircraft versions only in so far as they affect rescue activities.

Always regard remaining weapons as being armed and potentially dangerous upon uncommanded firing or dropping. Check the safety distance and identification of ammunition before approaching stores.
WEAPON ALTERNATIVES - ATTACK VERSIONS

AIRCRAFT TYPE

WEAPON TYPE

PRACTICE ROCKETS
2.5 INCHES (6.3 CM)

EXAMPLE:
MAXIMUM ARMAMENT
12 ATTACK ROCKETS
2.5 INCHES (6.3 CM)
AIRCRAFT HAZARDS - Continued

1. EXTERNAL STORES DANGER ZONES

WARNING

Red shaded area depicts danger zones applicable to SK 60. These zones are for uncommanded release, not firing. Release can occur upon fire, rescue or removal. Injury to personnel may occur under these circumstances in these danger zones.

2. INTAKE AND ENGINE EXHAUST DANGER ZONES

WARNING

Air intakes with high air velocity, heat or flying stones from exhaust gases behind the engines can cause serious injury.

3. ANTENNAS (RADIO FREQUENCY RADIATION) DANGER ZONES

WARNING

The rescue personnel shall not be inside the antenna danger zones, when the aircraft is powered up by an external power unit or when the engine is running. The danger zones are the maximum during longterm work on the aircraft.
AIRCRAFT HAZARDS - Continued

DIMENSIONS
Length 36 FT, 11 M
Wing span 32 FT, 10 M
Height to wing-tips with extended landing gear 4.2 FT, 1.3 M
Height to canopy rail
• extended landing gear 4.2 FT, 1.3 M
• retracted landing gear 2.6 FT, 0.8 M
Take-off weight 8810 LB, 4 ton

FUEL
Aviation turbine fuel (JP8) 370 FT³, 1400 L
2680 LB, 1218 KG

HYDRAULICS
Hydraulic fluid 021, alt 022
Tank volume 1.3 FT³, 5 L
Pressure accumulator 1 pc

OXYGEN
(60 A, B, C) Oxygen (GOX) Containers
2x1, 2 FT³, 4.5 L
2 pcs

EXPLOSIVES
Powder charges for:
• ejection seat/s
• restraining straps release
• pylon release mechanism

1 Powder (explosive) charge
2 Oxygen (GOX) container (60 ABC) 2 x 1.2 FT³, 4.5 L
3 Hydraulic accumulator 2 x 3.5 oz (100g)
4 Hydraulic tank 1.5 FT³, 5.7 L
5 Integral tanks
6 Flexible fuel tanks
7 Wheels

OXYGEN 125 atm (12.5 Mpa) at 27° F, 15°C
HYDRAULICS
PRESSURE TANK
FUEL TANKS
EXPLOSIVES
HYDRAULICS
FIRE ACCESS AND BATTERY CONNECTIONS

1. FIRE ACCESS
   a. The upper doors for both engines are opened by three finger operated latches. (Not shown.)
   b. The access panels are opened by two finger operated latches. If latches do not release, cut a hole in the sheet metal marked “HUGG HAR” or “BRANDBEKAMPNING”. Sheet metal thickness is 0.04 inches, 1.0 mm.

2. BATTERY CONNECTIONS

   WARNING

   To reduce the risk of fire, remove the battery connections.

   a. The aircraft batteries are located in the forward nose area of the aircraft. Turn the two battery connection knobs counterclockwise and pull out the connector together with the cables.
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw

AIRCRAFT ENTRY

1. EMERGENCY ENGINE SHUTDOWN
   a. For the left engine, spray fire quenching medium (fire extinguishant) into the air-intake.
   b. For the right engine, execute shutdown from the left side inside the cockpit.
   c. Impact may cause a jammed/stuck canopy condition. In this case, force open the canopy.

2. NORMAL ENTRY
   a. Approach from left forward area of the aircraft, depress the locking latch and open the canopy open door.
   b. With canopy door open, pull the lock plunger out to full length.
   c. Fold the lock plunger and turn it clockwise until it stops.
   d. Hold the lock plunger in this position until the canopy is fully open.

3. EMERGENCY ENTRY - CUT-IN
   a. There are no pyrotechnics for the canopy system. If canopy cannot be opened by the normal controls, break or cut canopy glass until aircrew can be safely egressed.
ENGINE SHUTDOWN

1. ENGINE SHUTDOWN

   a. Place safety catch, located on the control stick, in the SAFE position.

   b. Lift up the latches and pull throttles back past the latch to the back STOP position. (The right engine is stopped.)

   c. Turn off the LAGTR.KRAN V and H power switches. Wait approximately 3 seconds.

   d. Break the safety wire and turn off the main power switch NODSTOFF (Emergency Stop).

   **WARNING**

   During exercises the LT-COCKS shall not be turned off before the NR-instruments indicate that N2 rotors have stopped.

   **WARNING**

   During exercises use the power switch marked “FPL NAT”.

1a
SAFETY CATCH

1b
LATCHES (2)

2d
MAIN POWER SWITCH

2c
POWER SWITCHES
AIRCREW EXTRACTION
1. AIRCREW EXTRACTION

WARNING

Do not pull the ejection control handles on the forward top part of the ejection seat. Actuation will cause the seats to eject and death may occur to crewmember and rescue crewmen.

NOTE:

After canopy has been opened and engines are shutdown, both seats need to be safetied.

a. Located safety handle marked “STOLEN SAKRAD” on top of each seat. Grasp the safety handle and depress the lock catch.

b. Pull out the safety handle to full length.

c. Push the safety handle down to the HORIZONTAL position.

d. Set the safety handle into the LOCK CATCH position.

e. Ejection seat is now considered SAFE for extraction.

f. Loosen the crewmember’s oxygen mask and check for breathing. Raise the mask’s visor if necessary. Squeeze the two tabs on the helmet mask straps to release the mask from crewmember.
AIRCREW EXTRACTION - Continued

1. AIRCREW EXTRACTION - Continued

g. Disconnect oxygen hoses (emergency and normal), located at crewmembers midsection, by pulling disconnects apart at the two connections.

h. Break apart the telephony/microphone connection, located on crewmember's right side.

i. Lift the release plate, located at the crewmember's midsection, and open the chest harness release catch.

j. Depress the survival pack catches, located above the chest harness release catch and pull out the survival pack connection wire.

k. Pull apart the lower left seat connection by pulling upward.

l. Release the calf restraining strap locks located behind the crewmember's calves.

m. To remove the restraint straps from the crewmember: (1) stretch the shoulder harness straps (2) place the right arm inside the strap and (3) wriggle off the straps and hold the crewmember in the upright position.

n. Open the left and right leg harness catches by lifting the release plate.
AIRCREW EXTRACTION - Continued

2. EXTRACTING ALL CREWMEMBERS

For forward seat crewmembers:

a. Open the central locks on the forward seats (not shown).

b. Pull the red emergency emergency release handles located at each forward crewmember’s mid-section.

For aft seat crewmembers:

NOTE:
There is a catch-plate on the left front seat which must be removed first.

c. On the top of the front seats, move the unlock lever to the right. This will enable movement of the seat-back forward allowing room for extraction of the aft seat crewmembers.

d. Open the harness straps on the aft seats.

e. Depress the lock-button to release the aft crewmembers from their restraints.
AIRCRAFT TOWING AND WINCHING

1. AIRCRAFT TOWING AND WINCHING

   a. To tow and winch forward, attach routings around open cockpit and connect strap buckle under nose of aircraft. Tow/winches: Strap (two). Harnesses (two).

   b. To tow and winch backward, attach routings around both intakes at wings. Tow/winches: Straps (two). Coupling (one).

   c. To tow by vehicle or winch backward using a cross bar, route tow bar around open cockpit with connecting buckle under fuselage at aft part of engine.

   ![Diagram of aircraft tow and winch procedures]

   FORWARD
   BUCKLE
   BACKWARD
   STRAP AT CROSS BAR
   BUCKLE
   BACKWARD
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Use right fuselage door handles to open forward and aft entrance doors.

2. EMERGENCY ENTRY
   a. Use the forward door emergency jettison handle for the crew.
   b. Use the rear door emergency jettison handle for the passengers.

3. CUT-IN
   a. Cut-in as required.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Place the throttle, located in the forward cockpit at the forward left console, to GROUND IDLE position.
   b. Place the INV. and T/B switches, located on right side of forward instrument panel, to the OFF position.
   c. Place the propeller speed lever, located to the right of the throttle, to the FUEL OFF/FEATHERING position.
   d. Place the generator switches, located on the left side of forward instrument panel, to the OFF position.
   e. Place the battery switch, located just left of the generator switch, to the OFF position.
   f. Place the fuel selector, located forward of the throttle, to the OFF position.

2. AIRCREW EXTRACTION
   a. Unlatch lap belts and remove shoulder harnesses from crew members.
   b. Passenger seats are equipped with lap belts only.
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Press latch and open access door, located on upper right side of fuselage between forward and aft cockpit, to expose electrical switch.
   b. Push canopy switch to OPEN position and hold until canopy reaches full open position.

2. MANUAL ENTRY
   a. Press latch and open access door, located on upper right side of fuselage between forward and aft cockpit, and remove canopy handcrank.
   b. Insert canopy handcrank into locking shaft opening, located upper center of fuselage right side, and rotate handcrank and shaft clockwise.

   **WARNING**
   If canopy is opened manually or electrically for rescue, cut thruster ballistic hose above canopy right sill aft cockpit to deactivate canopy jettison system.

3. EMERGENCY ENTRY
   a. Push latch and open access door, located on upper right side of fuselage, center of aft cockpit, to expose the canopy jettison handle.
   b. Pull canopy jettison handle from stow bracket, walk away from aircraft at a 45 degree angle and pull handle to full cable length to jettison canopy.

4. CUT-IN
   a. Cut-in along canopy frame on all four sides.
ENGINE SHUTDOWN

1. ENGINE SHUTDOWN

a. Retard throttle, located on forward left console, to IDLE, then outboard to CUT OFF position.

b. Place main fuel shut-off switch, located left forward console, to CLOSE position.

c. Place battery switch, located on right forward console, to OFF position.
AIRCREW EXTRACTION

1. AIRCREW EXTRACTION

WARNING

If armrests are in the raised position, normal safetying of ejection seat can not be accomplished.

a. Insert ball lock safety pin in right armrest of each ejection seat.

ON MODIFIED SEATS:

b. Insert ball lock safety pin in aft portion of the right and left handgrip of each seat.

c. Pull upward on ballistic hose quick disconnect trip levers, located on left and right side of both seats behind the upper bucket portion of each seat.

NOTE:

On modified seats, pull upward on quick disconnect trip levers, one left side of forward seat and two left and right side of rear seat.

NOTE:

If quick disconnect fails to release, cut hoses above disconnects.

d. Unlatch lap belt and remove shoulder harness from crewmembers(s). (Modified seats have HBU/2B/A lap belts.)

e. On HBU-12/A lap belt, squeeze together the black and silver grips of the handle and lift up, separate belt, remove gold key, and remove shoulder harness/ negative “G” restraint strap loop ends.

f. If canopy has not been jettisoned, removal of parachute from aft seat crewmember may be necessary.
The aircraft information is located in Chapter 24 containing US Navy aircraft.
The aircraft information is located in Chapter 11 containing US Air Force aircraft.
The aircraft information is located in Chapter 11 containing US Air Force aircraft.
The aircraft information is located in Chapter 14 containing US Air Force aircraft.
The aircraft information is located in Chapter 14 containing US Air Force aircraft.
TB-30 EPSILON

SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY

NOTE:
TB 30 Epsilon aircraft does not have ejection systems. Access to the aircraft canopy must be gained over the left side.

a. Push on and turn release of external locking lever (two independent canopies).

b. Push up the canopy to rear position.

2. EMERGENCY ENTRY

a. The release mechanism of the miniature detonating cord “MDC” is located on left side of the fuselage.

b. Break glass and remove handle (approximately 2 meters long).

c. Pull FWD or AFT canopy jettison handle to full length to shatter corresponding canopy.

NOTE:
Only front canopy is shatted if the canopies are uncoupled.

3. CUT IN

a. Cut canopy along frame on all sides.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Pull the engine shutdown lever, located on the left side console, aft to the OFF position.
   b. Push the overall shutdown switch, located on the upper right side console, to the OFF position.
   c. Activate the flame arrester, located on the upper right side wall under the windshield.

2. AIRCREW EXTRACTION
   a. On crew seats, remove face mask before disconnecting hoses.
   b. Release the seat harness by turning restraint release in either direction.
   c. Disconnect the two crewmembers from any other connections that would frustrate extraction.
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY

NOTE:
This aircraft seats six to seven people. This aircraft is also offered as a multimission aircraft including military medevac, target towing, ECM, freight, maritime patrol, law enforcement, navaid calibration and vertical photography versions. These configurations may be encountered during rescue and must be kept in mind. A C model incorporates a cargo door.

a. Press handle release button, located on cabin entry door on left side fuselage, to release handle.

b. Turn down the door handle to unlock the cabin entry door.

c. Open the upper half of the cabin entry door.

d. Operate the hand lever at the top of the bottom half cabin entry door.

e. Open the lower half downward.

2. EMERGENCY ENTRY

a. Pull the emergency exit handle, located over the right wing, out of its compartment.

b. Pull the emergency exit handle to open the emergency exit.

c. Swing the emergency exit up side down and inward.

3. CUT IN

a. Cut-in as required.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Pull thrust lever, located on center console, backward. (The engine will slow down.)
   b. Pull fuel shut off lever, located on the center console, backward. (The engine will stop.)
   c. Put and steer tank selector, located on the center console, from left to right setting to the OFF position.
   d. Push down on the AUX BP switch, located on upper right forward instrument panel, to the OFF position.
   e. Push down on the crash bar, located on the over windshield panel, to the OFF position.

2. AIRCREW EXTRACTION
   a. Disconnect restraints from crew.
   b. Disconnect restraints from passengers.
AIRFRAME CARBON COMPOSITE FIBRES

- NIDA NOMEX STRUCTURE + HYBRID CLOTH “GLASS CARBON”
- NIDA NOMEX STRUCTURE + HYBRID GLASS CLOTH + “TEDLAR” FILM
- MONOLITHIC FIBERGLASS STRUCTURE
- MONOLITHIC “GLASS - CARBON” HYBRID CLOTH STRUCTURE
- SHEET - IRON SANDWICH STRUCTURE - NIDA NOMEX - SHEET IRON
NATO's Trainer Cargo Aircraft (TCA) is a modified Boeing 707-320C. The pilot's station is almost identical to the E-3A. The aircraft is capable of conducting air refuelling training, however fuel cannot be loaded due to having only a "dry" air refuelling receptacle. The aircraft can be quickly changed from an all passenger to all cargo configuration, and can be operated in a configuration carrying both cargo and passengers.

**Primary function:** Pilot training, cargo and passenger transport support.

**Power plant:** Four Pratt & Whitney JT-3D-7 turbofan engines.

**Thrust:** 19,000 lbs / 8837 kp each engine.

**Aircraft Dimensions:**
- Wingspan: 44.45 m / 145 ft 9 in
- Length: 46.68 m / 152 ft 11 in
- Height: 12.70 m / 41 ft 9 in

**Speed:** More than 966 km / 600 miles per hour

**Operational altitude:** Above 9,150 m / 30,000 ft

**Range:** More than 11,000 km / 7,000 miles

**Maximum take-off weight:** 152,727 kg / 336,000 lbs

**Fuel capacity:** 89,610 litres / 70,371 kg 22,768 gallons / 148,000 lbs

**Endurance:** More than 12 hours

**Aircrew:** 2 pilots 1 flight engineer

**Location:** Main Operating Base (MOB) Geilenkirchen, Germany
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Unlock the canopy by using the canopy lock/unlock handle, located on the left side fuselage, and pull handle outward.
   b. Operate handle to unlock canopy and raise canopy to open position.

2. EMERGENCY ENTRY
   a. Press white lock, located aft of canopy on left side fuselage.
   b. Open the canopy fracturing system door.
   c. Take the exposed yellow handle and pull completely on the connected cable to its full length to actuate the canopy fracturing system.
   d. Face away from canopy and jerk the cable to fracture the canopy.

3. CUT IN

   NOTE:
   If canopy fracturing system is damaged, it may be necessary to cut the canopy glass. Avoid blade contact with the ejection seats.
   a. Cut-in canopy as required or along canopy frame on all four sides.

NOTE:
No armament is carried.

FUEL CAPACITY:
183 US GALS (694 LITRES)

FUEL TANK CAPACITY:
183 US GALS
(694 LITRES)

AIRCRAFT DIMENSIONS:
LENGTH: 31 FT (9.86 METERS)
WINGSPAN: 36 FT (11.14 METERS)
HEIGHT: 11 FT 1 3/4 IN (3.40 METERS)

PROPELLER DANGER AREA

BATTERY

OXYGEN CYLINDERS

FUEL TANKS

INSTRUCTION PLACARD (SEE PROCEDURES)
ENGINE SHUTDOWN

1. ENGINE SHUTDOWN

1a. Retard thrust lever, located on the left console in both cockpits, to the minimal position.

1b. Push the thrust lever laterally.

1c. Bring the thrust lever backwards to the CUT OFF position.

1d. Pull back the red safety cover of the emergency shut off valve located forward of the thrust levers.

1e. Set the emergency shut off valve switch, located under red safety cover, downward, leaving the red safety cover open.

1f. Lower the six circuit breakers for fuel shut off located on the right side of the forward instrument panel in the forward cockpit.

1g. Pull and place the battery and generator switches, located in the forward cockpit right console, to the OFF position.

1h. Move the three oxygen levers, located on the right console in both cockpits, downwards to the OFF position.
AIRCREW EXTRACTION

1. AIRCREW EXTRACTION
   a. Remove safety pins from safety pin location in right console both cockpits.
   b. Install safety pin to safety the ejection firing handle, located at the center lower forward portion of the seat.
   c. Turn restraint release buckle, located on center of crewmember’s lap, clockwise and press forcefully.
   d. Unhook the survival pack strap located under restraint release buckle.
   e. Unlock leg restraint straps by rotating unlock lever aft.
AIRCRAFT HAZARDS

OTHER HAZARDS
Acids - Batteries
Aircraft Assisted Escape System
Beryllium + Beryllium Oxides
Composite Materials - Man Made Mineral Fibers
Dimethylformamide (Stobe Power Pack)
Miniature Detonating Cord - MDC
Polytetrafluoroethylene
Sonar Locator Beacons
Tritium Light Sources - Beta Lights
Aviation Fuel: AVTUR
Hydraulic Oil: OM-15
High Pressure Gases: Nitrogen/Air
Engine Oil: OX-27
Oxygen: Gaseous

Acids - Batteries
Aircraft Assisted Escape System
Beryllium + Beryllium Oxides
Composite Materials - Man Made Mineral Fibers
Dimethylformamide (Stobe Power Pack)
Miniature Detonating Cord - MDC
Polytetrafluoroethylene
Sonar Locator Beacons
Tritium Light Sources - Beta Lights
Aviation Fuel: AVTUR
Hydraulic Oil: OM-15
High Pressure Gases: Nitrogen/Air
Engine Oil: OX-27
Oxygen: Gaseous
AIRCRAFT ENTRY

1. NORMAL ENTRY

NOTE:
Approach canopy from left side. Canopy hinges to right side. Beware of sharp tops on ejection seats.

a. Place right foot on step under rear edge of left wing.

b. Place fingers in slot and pull canopy lock/unlock handle, located on the left side fuselage, outward.

c. Grip canopy handle and raise canopy to open position.

d. Insert locking pins to prevent canopy from falling.

2. EMERGENCY ENTRY

a. Approach from rear of aircraft.

b. Use thumb catch to open MDC door.

c. Select MDC actuator on either side.

d. Face away from canopy and pull cable 5 meters to fracture the canopy.

3. CUT IN

NOTE:
If canopy fracturing system is damaged, it may be necessary to cut the canopy glass. Avoid blade contact with the ejection seats.

a. Cut-in canopy as required or along canopy frame on all four sides.
ENGINE SHUTDOWN

1. ENGINE SHUTDOWN

NOTE:
The Command Selector is a device that allows choices for ejection in critical situations during flight. It is located in the rear cockpit, occupied or not, in the command position.

NOTE:
As power is needed to move throttle fully to rear, the battery/power switches must NOT be turned off first, otherwise, throttle remains in GROUND IDLE position.

a. Close throttle, located on the left console in either cockpit, by moving fully to the aft, lift and pull back.

b. Move the emergency shutdown lever, located aft of throttle, fully to the aft. Identified by yellow and black stripes.

c. Lift guard for the fuel/hydraulic switch, located on the right side of the front panel, and move to the UP position. Identified in yellow/black.

d. Lift red guard and move the five battery/power switches, located at rear of right console, to the OFF position.
1. AIRCREW EXTRACTION

NOTE:
Use stowage lockers only if rescue crew have no pins.

a. Keep clear of explosive cord in canopy.

b. Insert ejection seat firing handle pin, located between both crewmember's legs on forward center of seat pan.

c. If not fitted, insert MDC canopy fracture pins into both firing mechanisms on right side of canopy rail. Identified in yellow and black.

d. Remove crewmember's face mask.

e. Remove PEC (personal equipment) from crewmember(s).

f. Disconnect PSC (personal survival) connection by pressing side clips and lifting silver handle.

g. Clear crewmember's leg restraint straps through "D" rings.

h. Unlock combined parachute and seat harness QRF.

i. Move internal canopy locking handles, at side of cockpit, down to avoid harness snagging during extraction - out.

j. Extraction position is behind crewmember.
NOTE

Chapter 33 contains emergency rescue and mishap response information for the following NATO aircraft:

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<th>Country</th>
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<tr>
<td>NATO</td>
<td>MULTIROLE TANKER (MRT)</td>
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<tr>
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<td>TRISTAR K1 &amp; KC1</td>
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<tr>
<td>GBR</td>
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* Aircraft information pending
CHAPTER 33

NATO

TANKER

AEROSPACE EMERGENCY RESCUE
AND MISHAP RESPONSE INFORMATION

33-1. INTRODUCTION AND USE.

33-2. This section contains emergency rescue and mishap response information illustrations in alphano-merical order relative to type and model of aircraft. This arrangement of illustrations is maintained from Chapter 4 throughout the remainder of the publication.

33-3. GENERAL ARRANGEMENT.

33-4. Aircraft type designation has been positioned in the upper right corner of the horizontal illustration for rapid identification. Additional aids to rapid orientation are:

   a. Recent technological advances in aviation have caused concern for the modern firefighter. Aircraft hazards, cabin configurations, airframe materials, and any other information that would be helpful in fighting fires, the locating and rescue of personnel will be added as the information becomes available.

   b. Suggested special tools/equipment are listed in the upper left corner, on the Aircraft/Entry page of each listed aircraft.

   c. Procedural steps covering emergency/normal entrances, cut-ins, engine/APU shutdown, safetying ejection/escape systems, and aircrew extraction are outlined on the left side of each page with coordinated illustrations on the right.

   d. Illustrations located on right side of pages are coordinated with text by numerals and small letters depicting both paragraph and subparagraph on the page.

   e. Each illustration is consistently colored and/or pattern keyed to highlight essential emergency rescue information.

   f. Details are pulled directly from the illustration to highlight an area, thus eliminating unnecessary searching for desired information.
AIRCRAFT PAINT SCHEME
The KDC-10 is a DC-10-30CF modified for refueling capabilities.
AIRCRAFT HAZARDS
RADAR, INTAKE AND ENGINE EXHAUST
DANGER ZONES

RADAR 12.5 M

ENGINE INTAKE
1 TAKE OFF
2 STATIONARY

ENGINE EXHAUST
TAKE OFF (1)
450.5 M

IDLE (2)
65.5 M
AIRCRAFT HAZARDS - Continued

HAZARDOUS SYSTEMS, FLUIDS, AND MATERIALS

- **Yellow**: OXYGEN BOTTLES
- **Red**: FIRE EXTINGUISHER (HALON)
- **Teal**: COMPRESSED AIR BOTTLES FOR DOORS
- **Brown**: ENGINE OIL TANK
- **Light Purple**: AUTOMATIC FIRE (HALON) EXTINGUISHER INSTALLATION
- **Dark Blue**: HYDRAULIC FLUID RESERVOIRS
- **Orange**: HYDRAULIC ACCUMULATORS
- **Green**: DEPLETED URANIUM PARTS

**NOTE:**
Skydrol LD-4 is used on the KDC-10.
AIRCRAFT HAZARDS - Continued
BATTERY, FUEL TANKS, AND REFUELING BOOM

1. DISCONNECT BATTERY
   a. The battery is located at the under fuselage hatch.
   b. Open hatch, disconnect battery by two handscrews (red arrows) and turn counterclockwise.
   c. Pull handscrews away from terminals.
AIRFRAME MATERIALS

- INTERNAL DEPLETED URANIUM
- HARDENED GLASS
- FIBERGLASS “HOLLOW ROOM”
- ALUMINUM
FIRE ACCESS DOORS, HATCHES
AND ESCAPE ROUTES

1. FIRE ACCESS DOORS AND HATCHES

NOTE:
Special fire access doors are not available. Saw or cut-in areas for normal and marked entrances.

- DOOR/HATCH FIRE ACCESS
- MARKED CUT-IN AREAS
- ENGINE FIRE ACCESS
- ESCAPE ROUTE
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Fire Drill II
35 FT Ladder
3/8 IN Wrench

AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Pull door control handle out of recess to disarm escape slide.
   b. Move door control switch to open and hold.
   c. When door is fully open, release switch.

2. EMERGENCY ENTRY

   NOTE:
   When emergency entry is used, door will automatically move to full open position under pneumatic pressure.
   a. Pull door control handle out of fuselage.
   b. Rotate emergency override level from safe position to emergency position and hold.
   c. Rotate door control handle to emergency position.

   IF DOOR STILL DOES NOT OPEN

   WARNING

   Forward cabin doors have slide/rafts attached and are very heavy. Required lifting force may exceed 400 lbs. Mid cabin doors may or may not have slide/rafts installed.
   d. Push door inward as far as possible and hold.
   e. Use any available means to pry door upward.
AIRCRAFT ENTRY-Continued

3. MANUAL ENTRY
   a. Pull door control handle out, rotate to free fall position and hold.
   b. Insert 1/4 inch drive into socket and rotate as indicated until door is open.

   CAUTION
   Torque applied in excess of 100 IN-LB or 500 RPM may result in damage.
   c. Release door control handle to neutral.

4. CUT-IN
   a. Cut-in areas are located at normal entries and marked areas.

MANUAL DRIVE

1. PULL HANDLE OUT
2. ROTATE HANDLE TO FREE FALL
3. INSERT 1/4" SQUARE DRIVE INTO SOCKET AND ROTATE AS INDICATED
4. MAXIMUM OPERATING TORQUE = 100 IN. LBS. AT 500 RPM

CLOSE
OPEN

3b
LEFT FORWARD DOOR ONLY

EMERGENCY OVERRIDE LEVER
DOOR CONTROL HANDLE
STOWED POSITION
ENTRY (MARKED AREAS IN RED)
5. FRONT CARGO DOOR OPERATION

NOTE:
Located right front and can be accessed by a ladder.

(1) Decompress compartment by venting. Push button (A), pull lever (B) out, and hatch (C) shall go inward by lever (B).

(2) Open cargo door electrically. Open panel (D), place switch (E) behind red safety to “ON”. Use switch (F) next to ON/OFF switch to open door. Hold switch upward until a green light (G) illuminates.

NOTE:
Do not touch other switches in this switch panel.

(3) Release cargo door.

(4) Open cargo door.
6. CENTER CARGO DOOR

NOTE:
Located right aft and can be accessed by a ladder.

(1) Decompress compartment and vent by opening panel (O). Push button (A), pull lever (B) out.

(2) Open middle cargo door electrically. Open panel (D), place switch (E) behind red safety to “ON”. Use switch (F) next to ON/OFF switch to open door. Hold switch upward until a green light (G) illuminates.

NOTE:
Do not touch other switches in this switch panel.

(3) Release middle cargo door.

(4) Open middle cargo door.
7. EXTERNAL CARGO DOOR OPERATION WITH MANUAL MODE - NO POWER

(1) Decompress compartment and vent by opening panel (O) with push buttons. Push button (A), pull lever (B) out.

(2) Open panel (O) with push buttons.

(3) Place a 3/8 inch wrench in hole (C) and turn clockwise until the door is released.

(4) Place a 3/8 inch wrench in hole (D) and turn clockwise until door is completely opened.
AIRCRAFT ENTRY - Continued

8. AFT CARGO DOOR OPERATION - WITH POWER

NOTE:
Aft cargo door is located at the left aft fuselage.

(1) Decompress compartment and vent by pushing button (A), pull lever (B) out and panel (C) shall go inward by lever (B).

(2) Open panel (D) with two push buttons.

(3) Place switch (E) behind red safety to "ON".

NOTE:
Keep to side of door while opening.

(4) Use switch (F) next to ON/OFF switch to open door. Hold switch upward until a green light (G) illuminates.
AIRCRAFT ENTRY - Continued

9. AFT CARGO DOOR OPERATION - NO POWER

(1) Decompress compartment and vent by opening panel (C) with push buttons. Push button (A), pull lever (B) out.

(2) Place a 3/8 inch wrench in hole (D) and turn clockwise until the door is released.

(3) Place a 3/8 inch wrench in hole (E) and turn clockwise until door is completely opened.
1. ENGINE SHUTDOWN

NOTE:
   If engines fail to shutdown, push emergency fire T-handles, located on pilot’s overhead panel, forward.

a. Retard throttles, located on pilot’s center console, to full aft (OFF) position.

b. Place fuel control levers, located on pilot’s center console, aft and down to full (OFF position) detent.

c. Place APU fire control switch, located on flight engineer’s upper left panel, to OFF position.

NOTE:
   APU can be shut off from ground control panel, located just aft of left main landing gear wheel well fairing fillet.

d. Place battery switch, located on flight engineer’s center left panel, in OFF position.
APU SHUTDOWN

1. APU SHUTDOWN

NOTE:
The KDC-10 is fitted with an APU, a small jet engine providing electrical power where no ground power unit can be used or other power supply.

   a. The APU is located under the tail engine at door 315AB. It can not be reached from the ground level. The APU also blocks the boom entrance hatch.

   b. The APU has a fire-extinguishing system installed consisting of two halon bottles (800 PSI).

   c. The fire-extinguishing system can be discharged from the cockpit, located at upper flight engineers console and from the left main wheel well.
AIRCREW EXTRACTION

1. AIRCREW SEATS

NOTE:
Adjusting the seats can ease the extraction process by positioning the aircrew in a better attitude for removal.

a. Seat adjustment controls are located on lower left side for the first officer/co-pilot seat.

b. Seat adjustment controls are located on lower right side for the captain/pilot seat.
PASSENGER EXTRACTION

1. PASSENGER SEATS
   a. Passengers are located on sides with three seats across. The center seating is four seats across.
   b. Passengers are secured by a conventional lap/safety belt. Belt is released by pulling upward on buckle.

MIDDLE LUGGAGE COMPARTMENT (WHEN INSTALLED)

2.41 M
CARGO COMPARTMENT

1. CARGO COMPARTMENT

a. Cargo is placed on pallets down center of compartment. This compartment is located on the same level as the passengers. Access around pallets are on both outer sides of the compartment.

b. Access the passenger compartment by walking on either side of cargo pallets. Follow walk area (red arrows) to passenger compartment.

c. This access to be used if other means is not available. Be aware, this access will take more time for the rescue process, but is still a viable option.
1. CABIN CONFIGURATIONS

a. Configuration - half cargo and half passengers: 179 passengers and 5-14 aircrew.

b. Configuration - all passengers: 335 and 5 - 14 aircrew.
The Airbus A310-MRTT (Multi-Role Transport Tanker) is an extended range airliner. Additional fuel tanks will be added to the lower cargo compartments. For further information please see Chapter 28 AIRBUS A310-300.

AIRCRAFT DIMENSIONS:
- Wing Span 144’ 0” (43.89 M)
- Length with Probe 155’ 4.25” (47.36 M)
- Height 51’ 10” (15.80 M)

ACCOMODATION:
- Crew of two on flight deck. Aircraft is certified up to 270 people and can be converted with palletized configuration in 24 hours.

CONFIGURATIONS:
- Refueling, medevac, airborne command post and reconnaissance/airborne warning.

ARMAMENT:
- None carried.
AIRCRAFT HAZARDS

OTHER HAZARDS
- Acids - Batteries
- Cartridge Operated Equipment (Non Armament)
- Dimethylformamide (Stobe Power Pack)
- Lithium - Batteries
- Polytetrafluoroethylene
- Skydrol Hydraulic Oil OX-20
- Sonar Locator Beacons
- Strontium Locator Beacon (S) (Lithium Battery)
- Water Mehtanol
- Aviation Fuel: AVTUR
- Hydraulic Oil: OM-15
- High Pressure Gases: Nitrogen/Air
- Engine Oil: OX-26
- Oxygen: Gaseous

NOTE:
Upper deck passenger/cargo layouts may vary according to role or loading; cargo may be hazardous.

NOTE:
No armament is carried.

PORTABLE OXYGEN
114 CU FT/1800 PSI
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY-ALL PASSENGER DOORS

NOTE:
Cargo doors can open manually with hand crank, stowed internally on the flightdeck near the flight engineer.

a. Push release button located on unlock door panel to expose unlock lever.

b. Pull down unlock lever. Emergency slide will not be deployed. Some doors are not equipped with emergency slides.

2. EMERGENCY ENTRY

a. All doors open same as above.

b. Push release button to open flight deck evacuation hatch. Hatch opening is equipped with escape ropes.

c. Cargo doors can be used as a secondary entry.

3. CUT-IN

a. Cut in doors, fuselage and fire access panels as required.

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Diagram:
- FLIGHT ENGINEER
- SECOND OBSERVER
- FIRST OBSERVER
- FIRST OFFICER
- CAPTAIN
- HANDCRANK STOWAGE FOR DOORS
- 2c CARGO DOORS
- 3a ENGINE FIRE PANELS
- 3a CUT-IN AREAS
- 2c AREAS
- 3a FIRE ACCESS PANEL
- ESCAPE SLIDE (DEPLOYED POSITION - EACH DOOR)
- BCF FIRE EXTINGUISHERS (KC1 ONLY - LOCATED AT CENTER DOORS & GALLEY)
- 2 FIRST AID KITS
- 1a RELEASE BUTTON
- 1b UNLOCK LEVER
- 1a PASSENGER DOOR (SIX PLACES)
1. ENGINE SHUTDOWN

a. Pull back throttle levers, located on center console, to the CLOSE position.

b. Place fuel and ignition switches, located below throttles, to the OFF position. (This action also closes the HP fuel valve.)

c. In case of engine fire: Pull firepull T-handle for the fire extinguisher associated with the affected engine (1, 2, or 3), located on the forward panel above the windshield.

d. Pull the APU fire handle, if applicable, located on the upper left flight engineer panel.

e. Place the battery switch, located on the left center flight engineer panel, to the OFF position.
AIRCREW EXTRACTION

1. AIRCREW EXTRACTION

a. Crew seats are equipped with a five point release system using a center rotary buckle. Rotate in either direction to release restraints.

b. Passenger seats are equipped with a lap belt only.

c. Attendant seats are equipped with a four point release system using a center release rotary buckle. Rotate in either direction to release restraints.

UPPER DECK CONFIGURATION MAY BE ARRANGED FOR CARGO OR SEATS - MAXIMUM NUMBER OF CREW AND PASSENGERS ARE 220.

NOTE:
Interior controls: Slide can only be deployed by this interior switch.

TYPICAL PASSENGER EXIT FOR 6 ON K1 AND 5 ON KC1 MODELS
AIRCRAFT HAZARDS

OTHER HAZARDS

- Acids - Batteries
- Beryllium + Beryllium Oxides
- Bromochlorodifluoromethane (BCF Fire Extinguishant)
- Cartridge Operated Equipment (Non Armament)
- Chlorobromoethane (Fire Extinguishant)
- Chaff Dispenser
- Dimethylformamide (Stobe Power Pack)
- Flare Dispenser
- Freon
- Methyl Bromide (Fire Extinguishant)
- Radioactive Sources
- Skydrol Hydraulic Oil OX-20
- Sonar Locator Beacons
- Strontium Chromates
- Aviation Fuel: AVTUR
- Hydraulic Oil: OX-20
- High Pressure Gases: Nitrogen/Air
- Engine Oil: OX-7
- Oxygen: Gaseous

NOTE:
No armament is carried.
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY

NOTE:
This aircraft has provision for a maximum of 151 passengers and crew. Can be also used in the casualty evacuation role for 78 stretcher cases.

NOTE:
Escape chute at rear passenger door may be further aft if the aircraft is in a freight role. There are 4 escape chutes equipped on this aircraft.

a. Passenger doors (4) can be opened by pulling out and pressing down the unlock handle.

2. EMERGENCY ENTRY

a. Escape doors (4) can be opened by pushing in release button at top of door, gripping the bottom handhold and pulling outward. Escape rope stowage are in door frames.

3. CUT-IN

a. Cut-in panels are marked with red broken line at outer edge of panel. Use power rescue saw or crash ax for these areas.

b. There are fire access points (5) at rear of aircraft.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   
a. Lift the HP cock levers, located on the center console, pull fully back to the OFF position.
   
b. Pull out the LP cock switches, located on the flight engineer’s panel, and select the down position to OFF.
   
   NOTE:
   In case of engine fire, pull the appropriate corresponding engine fire T-handle to extinguish fire.
   
c. Place the battery switches, located to the right of the flight engineer’s panel, to the central OFF positions.
   
d. Place the APU normal switch to the SHUTDOWN position and the master switch to the OFF position. These switches are located beneath the battery switches.

2. AIRCREW EXTRACTION
   
   NOTE:
   Sliding windows can be used as escape routes using the escape ropes.
   
a. Disconnect the crew from their seat restraints.
   
b. Disconnect the passengers from their lap belts.
The aircraft information is pending release.
AIRCRAFT HAZARDS

OTHER HAZARDS

Acids - Batteries
Beryllium + Beryllium Oxides
Bromochlorodifluoromethane (BCF Fire Extinguishing)
Cartridge Operated Equipment (Non Armament)
Chlorobromoethane (Fire Extinguishing)
Chaff Dispenser
Dimethylformamide (Stobe Power Pack)
Flare Dispenser
Freon
Methyl Bromide (Fire Extinguishing)
Radioactive Sources
Skydrol Hydraulic Oil OX-20
Sonar Locator Beacons
Strontium Chromates
Aviation Fuel: AVTUR
Hydraulic Oil: OX-20
High Pressure Gases: Nitrogen/Air
Engine Oil: OX-7
Oxygen: Gaseous

NOTE:
No armament is carried.

EXTENT OF PRESSURIZED COMPARTMENT
TOTAL FUEL CAPACITY 21,570 GALLONS
SPECIAL TOOLS/EQUIPMENT
Power Rescue Saw
Crash Ax

AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Passenger doors (4) can be opened by pulling out and pressing down the unlock handle.

2. EMERGENCY ENTRY
   a. Escape doors (4) can be opened by pushing in release button at top of door, gripping the bottom handhold and pulling outward. Escape rope stowage are in door frames.

3. CUT-IN
   a. Cut-in panels are marked with red broken line at outer edge of panel. Use power rescue saw or crash ax for these areas.
   b. There are fire access points (5) at rear of aircraft.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Lift the HP cock levers, located on the center console, pull fully back to the OFF position.
   b. Pull out the LP cock switches, located on the flight engineer’s panel, and select the down position to OFF.
   
   NOTE:
   In case of engine fire, pull the appropriate corresponding engine fire T-handle to extinguish fire.
   
   c. Place the battery switches, located to the right of the flight engineer’s panel, to the central OFF positions.
   d. Place the APU normal switch to the SHUTDOWN position and the master switch to the OFF position. These switches are located beneath the battery switches.

2. AIRCREW EXTRACTION
   
   NOTE:
   Sliding windows can be used as escape routes using the escape ropes.
   
   a. Disconnect the crew from their seat restraints.
   b. Disconnect the passengers from their lap belts.
AIRCRAFT HAZARDS

OTHER HAZARDS

Acids - Batteries
Beryllium + Beryllium Oxides
Bromochlorodifluoromethane (BCF Fire Extinguishant)
Cartridge Operated Equipment (Non Armament)
Chlorobromoethane (Fire Extinguishant)
Chaff Dispenser
Dimethylformamide (Stobe Power Pack)
Flare Dispenser
Freon
Methyl Bromide (Fire Extinguishant)
Radioactive Sources
Skydrol Hydraulic Oil OX-20
Sonar Locator Beacons
Strontium Chromates
Aviation Fuel: AVTUR
Hydraulic Oil: OX-20
High Pressure Gases: Nitrogen/Air
Engine Oil: OX-7
Oxygen: Gaseous

NOTE:
No armament is carried.
AIRCRAFT ENTRY

1. NORMAL ENTRY
   a. Passenger doors (4) can be opened by pulling out and pressing down the unlock handle.

2. EMERGENCY ENTRY
   a. Escape doors (4) can be opened by pushing in release button at top of door, gripping the bottom handhold and pulling outward. Escape rope stowage are in door frames.

3. CUT-IN
   a. Cut-in panels are marked with red broken line at outer edge of panel. Use power rescue saw or crash ax for these areas.
   b. There are fire access points (5) at rear of aircraft.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN
   a. Lift the HP cock levers, located on the center console, pull fully back to the OFF position.
   b. Pull out the LP cock switches, located on the flight engineer's panel, and select the down position to OFF.
   NOTE: In case of engine fire, pull the appropriate corresponding engine fire T-handle to extinguish fire.
   c. Place the battery switches, located to the right of the flight engineer's panel, to the central OFF positions.
   d. Place the APU normal switch to the SHUTDOWN position and the master switch to the OFF position. These switches are located beneath the battery switches.

2. AIRCREW EXTRACTION
   NOTE: Sliding windows can be used as escape routes using the escape ropes.
   a. Disconnect the crew from their seat restraints.
   b. Disconnect the passengers from their lap belts.
The aircraft information is pending release.
NOTE

Chapter 34 contains emergency rescue and mishap response information for the following NATO aircraft:

TUR

U-17

* Aircraft information pending
CHAPTER 34

NATO

UTILITY

AEROSPACE EMERGENCY RESCUE
AND MISHAP RESPONSE INFORMATION

34-1. INTRODUCTION AND USE.

34-2. This section contains emergency rescue and mishap response information illustrations in alphabetical order relative to type and model of aircraft. This arrangement of illustrations is maintained from Chapter 4 throughout the remainder of the publication.

34-3. GENERAL ARRANGEMENT.

34-4. Aircraft type designation has been positioned in the upper right corner of the horizontal illustration for rapid identification. Additional aids to rapid orientation are:

   a. Recent technological advances in aviation have caused concern for the modern firefighter. Aircraft hazards, cabin configurations, airframe materials, and any other information that would be helpful in fighting fires, the locating and rescue of personnel will be added as the information becomes available.

   b. Suggested special tools/equipment are listed in the upper left corner, on the Aircraft/Entry page of each listed aircraft.

   c. Procedural steps covering emergency/normal entrances, cut-ins, engine/APU shutdown, safetying ejection/escape systems, and aircrew extraction are outlined on the left side of each page with coordinated illustrations on the right.

   d. Illustrations located on right side of pages are coordinated with text by numerals and small letters depicting both paragraph and subparagraph on the page.

   e. Each illustration is consistently colored and/or pattern keyed to highlight essential emergency rescue information.

   f. Details are pulled directly from the illustration to highlight an area, thus eliminating unnecessary searching for desired information.
AIRCRAFT ENTRY

1. NORMAL ENTRY

a. Push door handle, located on pilot's cabin door left side of fuselage and co-pilot's cabin door located on right side of fuselage, in and pull on opposite end of handle to open doors.

2. EMERGENCY ENTRY

a. Break windshield or windows if access cannot be gained through cabin entry doors.

3. CUT-IN

a. Cut cabin enclosure as required.
ENGINE SHUTDOWN AND AIRCREW EXTRACTION

1. ENGINE SHUTDOWN

   a. Pull throttle, located on center instrument panel, aft to CLOSED position.

   b. Pull mixture control knob, located on bottom center of instrument panel, out to IDLE CUT OFF position.

   c. Rotate the ignition switch, located on bottom left instrument panel, to the OFF position.

   d. Push the master switch, located on left bottom instrument panel, in the OFF position.

   e. Pull fuel shutoff valve knob, located on lower center instrument panel, full out to the OFF position.

2. AIRCREW EXTRACTION

   a. Disconnect the crew from their lap belts and shoulder harnesses.