

ARCS PROCEDURE	LOWERING AND RAISING SMET TOWER	PRO(SMET)-005.000
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## Lowering and Raising SMET Tower

### I. Purpose:

The purpose of this procedure is to describe how to lower and raise the SMET tower at the ARCS sites in the Tropical Western Pacific locale. It explains two different systems: the counterweight system at the Manus and Nauru sites; and the pivot system at the Darwin site.

### II. Cautions and Hazards:

- The SMET tower at the Manus and Nauru sites utilize a counterweight system that if improperly counterbalanced can fall or rise at a dangerous rate.
- The SMET tower at Darwin site is of BOM design and pivots at a point midway up the tower. Because the Darwin SMET tower has more instruments than a tower of this type normally does, lowering and raising procedures are trickier than typical.
- Do not lower or raise tower if there is a threat of lightning.
- Never place fingers around the bottom bolt that holds the weights from falling out. When lowering the tower, the internal weights shift to the narrow part of the tower. When raising it, the weights shift to the wider part at the bottom.

### III. Requirements:

- Lowering or raising must be performed by a minimum of two people.

### IV. Procedure:

#### A. Lowering and Raising SMET Tower at Manus and Nauru Sites

1. Verify that the area in which the tower is to be lowered is clear.
2. Verify that the counterweights are securely mounted on the counterweight rod.
3. Place a ladder midway in the lowering path to rest the tower on.
4. Verify that cables are free and will allow the lowering.
5. With a minimum of two people, lower the tower as follows:
  - a) One person should stand behind the tower and out of the line of drop, and then carefully remove the safety pin controlling the counterweight portion.

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- b) The second person should stand on one side of the tower to help lower the tower to the ladder.
  - c) Both people together should slowly and gently lower the tower and set it on the ladder.
6. After performing work on the tower equipment, verify that all cables are clear and will allow the raising of the tower.
  7. With a minimum of two people, slowly and gently raise the tower to its vertical position.
  8. Once the tower is vertical, insert the safety pin to secure the tower upright.

**B. Lowering and Raising SMET Tower at Darwin Sites**

1. Verify that the area in which the tower is to be lowered is clear.
2. Place a ladder midway in the lowering path to rest the tower on.
3. Verify that cables are free and will allow the lowering.
4. With minimum of two people, lower the tower as follows:
  - a) One person should stand behind the tower and out of the line of drop, and then carefully remove the safety pin holding the tower in place. *This person also handles the rope that allows controlled lowering.*
  - b) The second person should stand on one side of the tower to help lower the tower to the ladder.
  - c) Both people together should slowly and gently lower the tower and set it on the ladder.
5. After performing work on the tower equipment, verify that all cables are clear and will allow the raising of the tower.
6. With a minimum of two people, slowly and gently raise the tower to its vertical position.
7. Once the tower is vertical, insert the safety pin to secure the tower upright.

**V. References:**

None.

**VI. Attachments:**

None.