# VIII. Transportation & Comms

*Section VIII details the number and type transportation facilities and communications equipment for use within the Antarctic treaty area.*

## Surface, Marine, and Air Transportation Vehicles

### McMurdo Station

| | |
|---|---|
| Truck, (light and heavy) | 97 |
| Carrier, Personnel and Cargo (tracked and wheeled) | 58 |
| Trailer, (tracked and wheeled) | 39 |
| Front-end loader, bucket and forklift | 47 |
| Forklift, warehouse | 20 |
| Motor toboggans | 120 |
| Crane | 3 |
| Road grader | 4 |
| Roller | 4 |
| Tractor, crawler | 34 |
| Tractor, wheeled | 2 |
| Sweeper, magnet | 1 |
| Snow plane | 6 |
| Truck, fire, pumper | 8 |
| Trencher | 1 |
| Aircraft, LC-130 | 6 |
| Helicopters, Aerospatiale AS-350B-2 | 3 |

| | |
|---|---|
| Helicopters, Bell 212 | 1 |
| Scraper | 2 |
| Backhoe | 2 |

### Amundsen-Scott South Pole Station

| | |
|---|---|
| Cranes | 3 |
| Excavator | 1 |
| Front Loader, tracked | 7 |
| Motor Toboggans | 10 |
| Personnel Carrier | 4 |
| Snow Plane | 2 |
| Tele-handler | 1 |
| Tractor Crawler | 5 |
| Trencher | 1 |
| Truck, light and heavy | 4 |

### Palmer Station

| | |
|---|---|
| Front-loader (wheeled) | 2 |
| Motor toboggans | 2 |
| Boats, rubber (Zodiac) | 16 |
| Forklift, all terrain | 1 |
| Telescopic material handler | 1 |
| Vehicle, all terrain, 4-wheel | 4 |

## Description of Communications Facilities

**Note:** For information on frequencies, see attached Comms forms (Attachment A). The following projects are contemplated for the FY 2002-2003 season in Antarctica.

### McMurdo and South Pole stations

In an effort to provide the station with 24 hours a day/7 days a week email connectivity, installation of a narrow band data link between McMurdo and South Pole stations is scheduled using a single Iridium phone channel. A four channel Iridium data solution may be in place by the end of the Austral Summer.

### South Pole Station

Upgrades and modification to the South Pole Marisat/GOES Terminal are scheduled that will include replacement of the existing antenna feed and satellite modems, evaluating system performance over Marisat and if satisfactory, reintegration of the GOES system to enable use the 9 meter dish.

### Palmer Station

Installation of a 384 kbs satellite link is planned to provide 24 hour connectivity to Palmer station.

## Description of Airfields

### McMurdo Station

#### *Air Facilities*

1. Williams Field - 2 x 10,000ft, skiways on ice shelf
2. Sea Ice Runway - 2 x 10,000 ft runways (on annual sea ice)
3. Pegasus Glacier Ice runway -1 x 10,000
4. McMurdo Helicopter landing pad

#### *Crash Equipment/Fire Equipment*

1. Two Canadian Foremost Chieftains, 1200 gallons AFFF (each)
2. Two Nodwell Flex-Trac equipped with 1350 lb. PKP, 200 gallon AFFF
3. One Nodwell Flex-Trac equipped with 3,000 lb. PKP
4. Seven 150 lb. PKP sled-mounted extinguisher on the flight line
5. Two 3,000 lb. PKP sled-mounted extinguishers at the heli-pad
6. One Tanker, 3,400 gallons of water
7. Two Pumpers, 750 gallons (H2O), 1000 GPM

#### *Navigation Aids*

1. Precision (course & glide slope) Approach Radar (PAR) and Approach Surveillance Radar (ASR) on primary landing runways, AN/FPN-36 radar
2. AN/TRN-26 TACAN
3. AN/URN-25 TACAN
4. T-1109/GRT-22 UHF radio beacon
5. Terminal Approach Control Radar (GPN-27)
6. Precision Approach Path Indicator (PAPI)
7. Mobile Microwave Landing System (MMLS)

## Amundsen-Scott South Pole Station

#### *Air Facilities*

1 x 14,000 ft. skiway

#### *Crash Equipment*

Three 350 lb. dry chemical units

#### *Navigation Aids*

1. PAR and ASR radar, AN/FPN-36
2. AN/URN-25 TACAN
3. T-1109/GRT-22 UHF beacon

## Palmer Station

#### *Air Facilities*

None. Open field landings on glacier possible

#### *Crash Equipment*

None

#### *Navigation Aids*

T-1109/GRT-22 UHF beacon

## Marble Point Camp

#### *Air Facilities*

One helicopter landing pad

### *Crash Equipment*

1. Three 150 lb. dry chemical unit (PKP)

### *Navigation Aids*

None