

**ANTARCTIC SPECIALLY PROTECTED AREA No 156**  
**LEWIS BAY, MOUNT EREBUS, ROSS ISLAND**

**1. Description of values to be protected**

An area on the lower slopes of Mount Erebus, above Lewis Bay on the north side of Ross Island, was originally declared a tomb in Recommendation XI-3 (1981) after notification by New Zealand that 257 people of several nationalities lost their lives when the DC-10 aircraft in which they were travelling crashed at this site on 28 November 1979. In spite of the determined and courageous actions of the New Zealand and United States Antarctic expeditions the bodies of some of those who died could not be recovered. Expressing deep sympathy with the relatives of those who died and with the Government and people of New Zealand, the tomb was declared in order to ensure that the area be left in peace. These reasons for special protection are still valid, and the Area is to be kept inviolate as a mark of respect, in remembrance and in order to protect the site's emotional values.

In late 1979 a six-foot oregon timber cross was erected close to the crash site as a memorial to those who lost their lives. After damage by wind this cross was replaced on 30 January 1987 with a cross of stainless steel, located on a rocky promontory overlooking and approximately 3 km from the site. This site is not part of the protected area, but is proposed as an Historic Monument in recognition of the commemorative and symbolic values of the cross.

**2. Aims and objectives**

Management at Lewis Bay aims to:

- avoid degradation of, or substantial risk to, the values of the Area;
- ensure the crash site is kept inviolate and prevent unnecessary human disturbance to the Area;
- allow visits to the nearby site of the memorial cross for the purposes of commemoration or to pay respects;
- allow visits for purposes in support of the aims of the management plan.

**3. Management activities**

The following management activities are to be undertaken to protect the values of the Area:

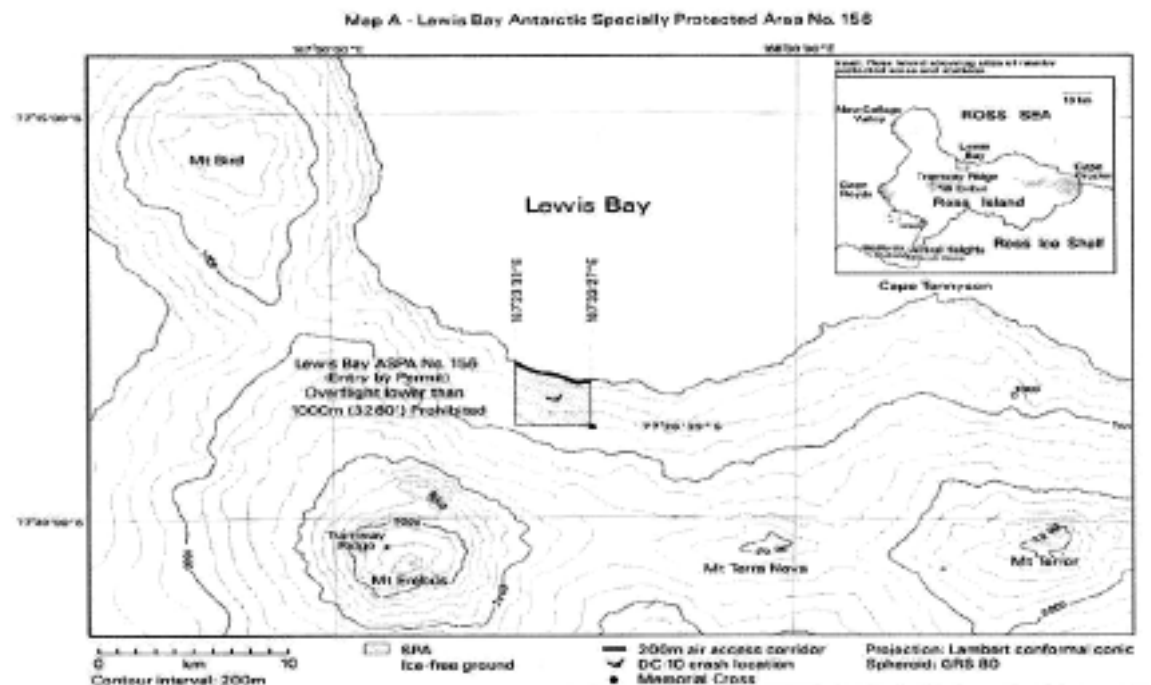
- All pilots operating in the region shall be informed of the location, boundaries and restrictions applying to entry and over-flight in the Area;

- Visits shall be made as necessary (no less than once every five years) for inspection and to assess whether the Area continues to serve the purposes for which it was designated;
- National Antarctic Programmes operating in the region shall consult together with a view to ensuring these steps are carried out.

#### 4. Period of designation

Designated for an indefinite period.

#### 5. Maps and photographs



Map A: Lewis Bay protected area topographic map. Note: Map A is derived from the Antarctic Digital Database (ADD) Version 1.0, 1993, which was prepared to a base scale of 1:250,000 under the auspices of SCAR. Positional corrections have been applied to the ADD source data using 1993 and 1995 Global Positioning System (GPS) data and 1993 aerial photography. Accuracy of the map remains approximate pending publication of new and accurate Ross Island maps at 1:50,000 scale. The geographical coordinates of the crash site and other features are considered accurate to within approximately 100–200

m horizontally. Elevation data are considered accurate to approximately 100 m vertically.

Map A specifications: Projection: Lambert conformal conic; Standard parallels: 1st 79° 18' 00" S; 2nd 76° 42' 00"S; Central Meridian: 167° 30' 00" E; Latitude of Origin: 78° 01' 16.211" S; Spheroid: GRS80.

INSET: Lewis Bay, Ross Island location map, showing sites of nearby protected areas and stations.

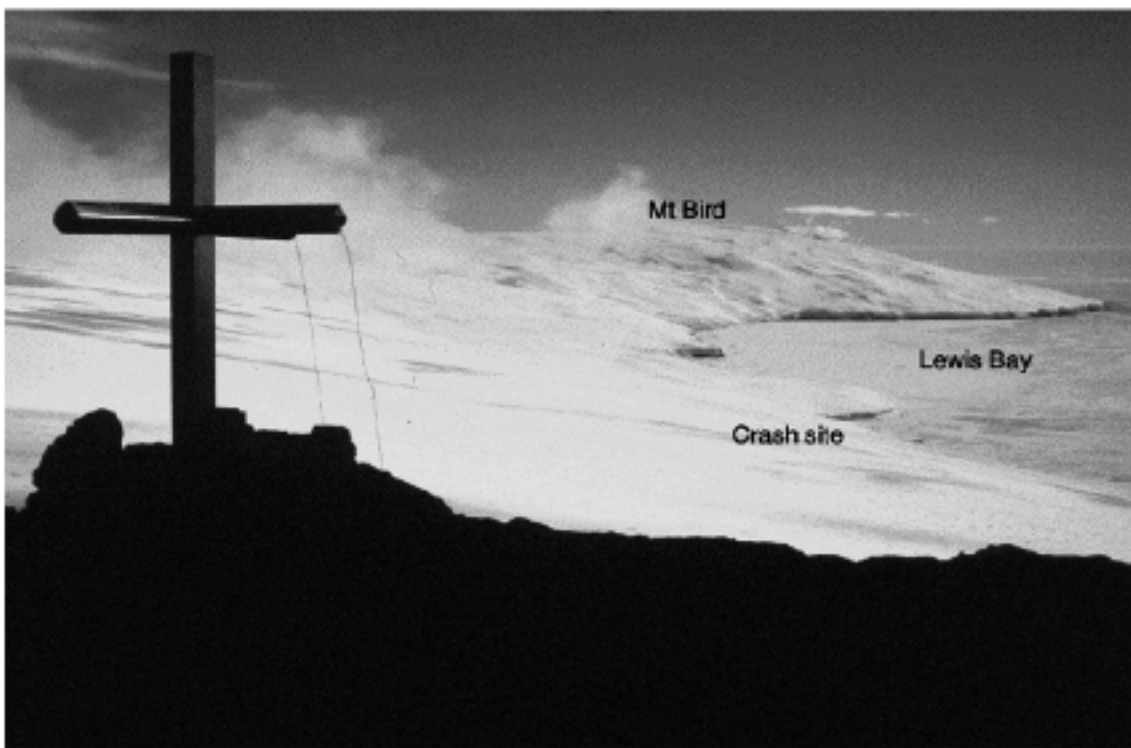


Figure 1. Lewis Bay from memorial cross site (December 1993).

Figure 1: Photograph of the Lewis Bay area and crash site from the memorial cross.

## 6. Description of the Area

### 6(i) Geographical coordinates, boundary markers and natural features

The designated Area on Ross Island (Map A) encompasses the crash zone (centered on 167° 28' 30"E, 77° 25' 29"S, elevation 520 m (1720 feet)) and the surrounding glacial ice 2 km above and to either side of this position, extends as a 4 km wide 'rectangle' down to the sea, and includes the airspace above this region to an altitude of 1000 m (3280 feet) with the exception of a 200 m wide air access 'corridor' along the coastline. The west

boundary of the Area is the 167° 23' 33"E meridian; the east boundary is the 167° 33' 27"E meridian. The south boundary is the 77° 26' 33"S parallel, while the north boundary is defined by the coastline. The aircraft's primary impact occurred at an elevation of 446.7 m: debris was spread up-slope 570 m from that point over an area 120 m wide to an elevation of 580 m (1900 feet). Much of the aircraft wreckage is now buried in ice and is slowly moving down-slope with the glacier to the sea (Figure 1). The bodies of some of those who died could not be recovered and remain in the Area. Boundary markers have not been placed to mark the Area for two reasons: their presence is considered detrimental to the inviolate values of the site, and their maintenance would be impractical on the moving glacier.

*6(ii) Restricted zones within the Area*

None.

*6(iii) Structures within and near the Area*

The stainless steel memorial cross (proposed as a Historic Monument) is located on a rock outcrop (167° 33' 43"E, 77° 26' 38"S; elevation 810 m (2660 feet)) approximately 3 km SE of the crash site, and is a symbol of the special significance of the Area. No other structures exist within or near the Area. Debris from the aircraft remains *in situ*.

*6(iv) Location of other protected areas within close proximity of the Area*

The nearest protected area to Lewis Bay is ASPA 130 at Tramway Ridge (15 km distant) near the summit of Mt. Erebus. New College Valley ASPA 116 (at Cape Bird) and Cape Royds ASPA 121 are approximately 35 km west on Ross Island. Cape Crozier ASPA 125 is 40 km to the east. (Refer to inset: Map A).

## **7. Permit conditions**

Entry into the Area is prohibited except in accordance with a Permit issued by appropriate national authorities. Conditions for issuing a Permit to enter the Area are that:

- it is issued only for compelling purposes that are in support of the aims of the Management Plan;
- the actions permitted will not compromise the values of the Area;
- the actions permitted are in accordance with the Management Plan;
- the Permit, or an authorized copy, shall be carried within the Area;
- a visit report shall be supplied to the authority named in the Permit;

- permits shall be issued for a stated period.

*7(i) Access to and movement within the Area*

Land vehicles are prohibited within the Area and access shall be by foot or by helicopter. Overflight of the Area is prohibited below 1000 m (3280 feet) above sea level, except for essential access related to the values for which this site is protected, or for inspection and monitoring of the site (at least once every five years). An exception to the overflight restriction is provided by a 200 m wide access 'corridor' through the area immediately adjacent to the coastline (Map A), which allows transit of aircraft through the Area at times when visibility or conditions make avoidance of the Area otherwise impractical. No special restrictions apply to the air routes used to move to and from the Area by helicopter when access is permitted. Use of helicopter smoke grenades within the Area is prohibited unless absolutely necessary for safety, and then these should be retrieved.

*7(ii) Activities that are or may be conducted in the Area, including restrictions on time or place*

All visits to the Area for any purpose shall be made recognising the principal values to be protected in the Area, and as far as possible the Area should be left in peace. Visits may be made for essential inspection to ensure the values of the Area are being maintained, and to determine if materials at the site present a problem by emergence from the ice and then possible wind dispersal, or for securing or removal of such items. Visits may also be made for removal of materials introduced into the Area subsequent to its designation, if appropriate.

*7(iii) Installation, modification or removal of structures*

No structures are to be erected within the Area except as specified in a Permit. It is prohibited to modify or remove any structure that was present within the Area at the time of special protection designation.

*7(iv) Location of field camps*

Camping is prohibited within the Area, unless under exceptional circumstances for management or protection. Where camping is required for such activities, the site selected shall be no closer than 200 m from the location of the wreckage at the time of the visit.

*7(v) Restrictions on materials which can be brought into the Area*

It is prohibited to introduce any materials into the Area. Smoke grenades used when absolutely necessary for safety of air operations should be retrieved.

*7(vi) Taking or harmful interference with native flora or fauna*

Taking or harmful interference with native flora or fauna is prohibited within the Area.

*7(vii) Collection or removal of anything not brought into the Area by the Permit holder*

Collection or removal of anything not brought into the Area by the Permit holder is prohibited, unless it has been determined that materials at the site are emerging from the ice and their dispersal by wind presents a management problem. If this is the case, such materials should be appropriately disposed of with due regard to the families of victims and according to national procedures. Materials introduced into the Area subsequent to designation may be removed unless the impact of removal is likely to be greater than leaving the material *in situ* : if this is the case the appropriate authority should be notified.

*7(viii) Disposal of waste*

It is prohibited to dispose of any waste, including all human wastes, within the Area.

*7(ix) Measures that are necessary to ensure that the aims and objectives of the Management Plan can continue to be met*

None specified.

*7(x) Requirements for reports*

Parties should ensure that the principal holder for each permit issued submit to the appropriate authority a report describing the activities undertaken. Such reports should include, as appropriate, the information identified in the Visit Report form suggested by SCAR. Parties should maintain a record of such activities and, in the Annual Exchange of Information, should provide summary descriptions of activities conducted by persons subject to their jurisdiction, which should be in sufficient detail to allow evaluation of the effectiveness of the Management Plan. Parties should, wherever possible, deposit originals or copies of such original reports in a publicly accessible archive to maintain a record of usage to be used in any review of the management plan.