Australian Capital Territory

Heritage (Decision about Registration of the Orroral Valley Tracking Station, Rendezvous Creek) Notice 2016

Notifiable Instrument NI2016—74

made under the

Heritage Act 2004, s40 (Decision about registration)

1 Name of instrument

This instrument is the *Heritage (Decision about Registration of the Orroral Valley Tracking Station, Rendezvous Creek) Notice 2016.*

2 Decision about registration

On 11 February 2016, the ACT Heritage Council (the **Heritage Council**) decided to register the Orroral Valley Tracking Station, part Block 8, Rendezvous Creek (the **Place**).

3 Registration details of the Place

The registration details of the Place are in the schedule.

4 Reasons for the decision

The Heritage Council decided to register the Place because it has heritage significance as it meets one or more of the heritage significance criteria in section 10 of the *Heritage Act 2004*, as set out in the schedule.

5 Date registration takes effect

The registration of the Place takes effect on the day after this notice is notified.

6 Revocation

The *Heritage (Decision about Provisional Registration of the Orroral Valley Tracking Station, Rendezvous Creek) Notice 2015* NI2015—559 is revoked.

Fiona Moore
A/g Secretary (as delegate for)
ACT Heritage Council
11 February 2016

Schedule
(See Sections 3 and 4)

ACT Heritage Council

AUSTRALIAN CAPITAL TERRITORY

HERITAGE REGISTER

(Registration)

For the purposes of s. 40 of the *Heritage Act 2004*, an entry to the heritage register has been prepared by the ACT Heritage Council for the following place:

Orroral Valley Tracking Station

Part Block 8, Rendezvous Creek

DATE OF DECISION

11 February 2016 Notifiable Instrument: 2016-

Copies of the Register Entry are available for inspection at ACT Heritage. For further information please contact:

The Secretary
ACT Heritage Council
GPO Box 158
CANBERRA ACT 2601
Telephone 13 22 81

This statement refers to the location of the Orroral Valley Tracking Station as required in s. 12 (b) of the *Heritage Act 2004*.

LOCATION OF THE PLACE

Orroral Valley Tracking Station, part Block 8, Rendezvous Creek

This section refers to the description of the Orroral Valley Tracking Station as required in s.12(c) of the *Heritage Act 2004*. The attributes described in this section form part of the heritage significance of the place. For the purposes of s. 12(c) of the *Heritage Act 2004*, the boundary of the place is at Image 1.

DESCRIPTION OF THE PLACE

Orroral Valley Tracking Station, consisting of the following attributes:

- Operations area, consisting of remnant concrete platform, approximately 45 by 40 metres.
- Facilities area, consisting of:
    - remnant concrete platform with brick edge;
    - section of green bathroom tiles atop platform.
- Canteen, consisting of remnant concrete platform with brown tiles in centre island.
- Minitrack building, MOTS and antenna field, consisting of:
    - Concrete platform indicating Minitrack building;
    - Minitrack pylons indicating antenna field.
- Baker-Nunn Camera mount.
- Concrete foundations for 26 metre dish and transmitter building.
- Concrete foundations indicating location of 9 metre dish and collimation building.
- Two Satellite Automatic Tracking Antenna Network (SATAN) array concrete foundations.
- Landscape setting, consisting of:
    - Exotic trees:
        - Cypress trees (*Cupressaceae sp)*;
        - Lombardy poplars (*Poplus nigra)*;
        - Silver birch (*Betula pendula)*;
    - Former internal circulation roads.

This statement refers to the heritage significance of the Orroral Valley Tracking Station as required in s.12(d) of the *Heritage Act 2004*.

STATEMENT OF HERITAGE SIGNIFICANCE

The Orroral Valley Tracking Station represents an important aspect of the ACT's cultural history, demonstrating its contribution to space exploration and research. The era of mid twentieth century space exploration saw the ACT participate in advances in burgeoning and significant fields in science and technology on an international level. Orroral Valley Tracking Station was the largest tracking station of its kind in the southern hemisphere, instrumental in receiving and transmitting data for many of NASA's key space programs. It belonged to the largest space tracking network in the world, STADAN, the Satellite Tracking and Data Acquisition Network, with the characteristic STADAN infrastructure still evident at the site in the form of satellite footings and mounts *[criteria (a), (d), and (h)].*

CONSERVATION OBJECTIVE

The guiding conservation objective is that the Orroral Valley Tracking Station shall be conserved and appropriately managed in a manner respecting its heritage significance.

The ACT Heritage Council may adopt heritage guidelines applicable to the place under s25 of the *Heritage Act 2004*.

For further information on guidelines applicable to the place, or for advice on proposed works or development, please contact ACT Heritage on 13 22 81.

REASON FOR REGISTRATION

Orroral Valley Tracking Station, Rendezvous Creek, has been assessed against the heritage significance criteria and been found to have heritage significance when assessed against criteria (a), (d), and (h) under s.10 of the *Heritage Act 2004*.

ASSESSMENT AGAINST THE HERITAGE SIGNIFICANCE CRITERIA

The Council's assessment against the criteria specified in s.10 of the *Heritage Act 2004* is as follows.

In assessing the nomination for Orroral Valley Tracking Station, Rendezvous Creek, the Council considered:

- the original nomination and documentary evidence supplied by the nominator;
- the Council's *Heritage Assessment Policy* (February 2015);
- information provided by a site inspection on 29 June 2015 by ACT Heritage; and
- the report by ACT Heritage titled, *Background Information, Orroral Valley Tracking Station,* February 2016, containing photographs and information on history, description, condition and integrity.

Pursuant to s.10 of the *Heritage Act 2004,* a place or object has heritage significance if it satisfies one or more of the following criteria. Future research may alter the findings of this assessment.

(a) importance to the course or pattern of the ACT's cultural or natural history;

Orroral Valley Tracking Station, Rendezvous Creek, meets this criterion.

Orroral Valley Tracking Station is important in the context of the ACT's involvement in twentieth century international satellite development and space exploration. It tracked scientific satellites that informed NASA's manned space flight program. It also tracked manned spacecraft for the famous Apollo-Soyuz and Space Shuttle missions, and tracked Wresat: the Weapons Research Establishment Satellite, the first satellite built, launched, and tracked in Australia.

Orroral Valley Tracking Station was the largest tracking station in the southern hemisphere, and was instrumental as a facility within the STADAN network. It was able to receive and process data from spacecraft faster than Deep Space Stations in the United States, 24 hours a day, every day of the year, processing data from satellites including the orbiting geophysical, astronomical, and solar observatories. These satellites laid groundwork for standardised spacecraft designs, and provided the first ultraviolet maps of the sky, and measurements of the sun's electromagnetic radiation, without which later manned spaceflights could not have occurred.

(b) has uncommon, rare or endangered aspects of the ACT's cultural or natural history;

Orroral Valley Tracking Station, Rendezvous Creek, does not meet this criterion.

Orroral Valley Tracking Station was one of only three international space tracking stations built in the ACT, and the only one of these that belonged to the STADAN network, which was the largest space tracking network in the world until the STADAN stations were phased out in the early 1980s. However, owing to its dismantlement and disuse in the 1980s, there is insufficient remaining physical fabric at the place to demonstrate its rarity and meet thresholds for inclusion under this criterion.

(c) potential to yield information that will contribute to an understanding of the ACT's cultural or natural history;

Orroral Valley Tracking Station, Rendezvous Creek, does not meet this criterion.

Archaeological material pertaining to the history and operation of Orroral Valley Tracking Station is evidenced by the 2012 magnetometer survey completed by Flinders University. While this evidence may further illumine the configuration, operation, and closure of the facility, it is unlikely to provide substantial new information to the history of space exploration in the ACT, as sufficient documentary and material evidence pertaining to these aspects of the Orroral Valley Tracking Station exists in museums and private collections (see Clark 2012).

(d) importance in demonstrating the principal characteristics of a class of cultural or natural places or objects;

Orroral Valley Tracking Station, Rendezvous Creek, meets this criterion.

The place is important in demonstrating the principal characteristics of a STADAN tracking station. While operational, the Orroral Valley Tracking Station was an important contributor to the STADAN network, and constantly upgraded with new receiving and transmitting facilities. It

boasted a Minitrack system, Baker-Nunn camera, and the characteristic STADAN 26m antenna and SATAN antennas. For its time, it was an extensive and exceptional facility capable of continuously tracking a large number of satellites. While the equipment demonstrating these qualities had been removed by 1985, the footprints of the antennae arrays and associated buildings remain at the site, demonstrating the scale of the facility and the relationships between its various technical components.

(e) importance in exhibiting particular aesthetic characteristics valued by the ACT community or a cultural group in the ACT;

Orroral Valley Tracking Station, Rendezvous Creek, does not meet this criterion.

The place is situated in a picturesque visual setting and incorporates an attractive cultural landscape on the Orroral Valley floor. However, it does not possess landmark qualities, artistic excellence, or visual prominence demonstrated to be valued by the wider ACT community or a cultural group. While the place is valued by professional and special interest groups, these are not connected through the same way of living, which has been transmitted from one generation to another, and do not share a cultural or ethnic background, and therefore do not fall within the definition of a cultural group as defined by the Council in its *Heritage Assessment Policy 2014*.

(f) importance in demonstrating a high degree of creative or technical achievement for a particular period;

Orroral Valley Tracking Station, Rendezvous Creek, does not meet this criterion.

While the place was an important station in the STADAN network, the largest in the southern hemisphere, capable of extensive data reception and transmission while operational, its technical significance is no longer evident in the physical fabric of the place.

(g) has a strong or special association with the ACT community, or a cultural group in the ACT for social, cultural or spiritual reasons;

Orroral Valley Tracking Station, Rendezvous Creek, does not meet this criterion.

The place is important to interest and professional groups, and previous employees of the facility. However the association does not extend to the ACT community or a cultural group, is not easily recognisable to the broader ACT community, and is not an association beyond the ordinary. These groups are not connected through the same way of living, which has been transmitted from one generation to another, and they do not share a cultural or ethnic background, and therefore do not constitute a cultural group defined by the Council in its *Heritage Assessment Policy 2014.*

(h) has a special association with the life or work of a person, or people, important to the history of the ACT.

Orroral Valley Tracking Station, Rendezvous Creek, meets this criterion.

Orroral Valley Tracking Station has a special association with NASA, the United States Government body which has been prominent international space exploration since the mid twentieth century. NASA has made an important contribution to the history of the ACT in signing an agreement with the Australian Government that established stations to manage information

for international space tracking and manned space flight programs. Establishment of the stations raised the scientific profile of the ACT on an international level, and the work of Orroral Valley Tracking Station was instrumental in the success of renowned space exploration programs such as Apollo-Soyuz and the Space Shuttle missions. NASA's connection with the scientific profile of the ACT is enduring, as evidenced by the ongoing operation of the Tidbinbilla Tracking Station for the Deep Space Network.

Further, the place bears an association with prominent engineer Thomas Reid, who successively directed all three space tracking stations at Orroral Valley, Honeysuckle Creek, and Tidbinbilla, and whose notable management style directly contributed to the successful running of each station and its contribution to the scientific history of the ACT.

SITE PLAN

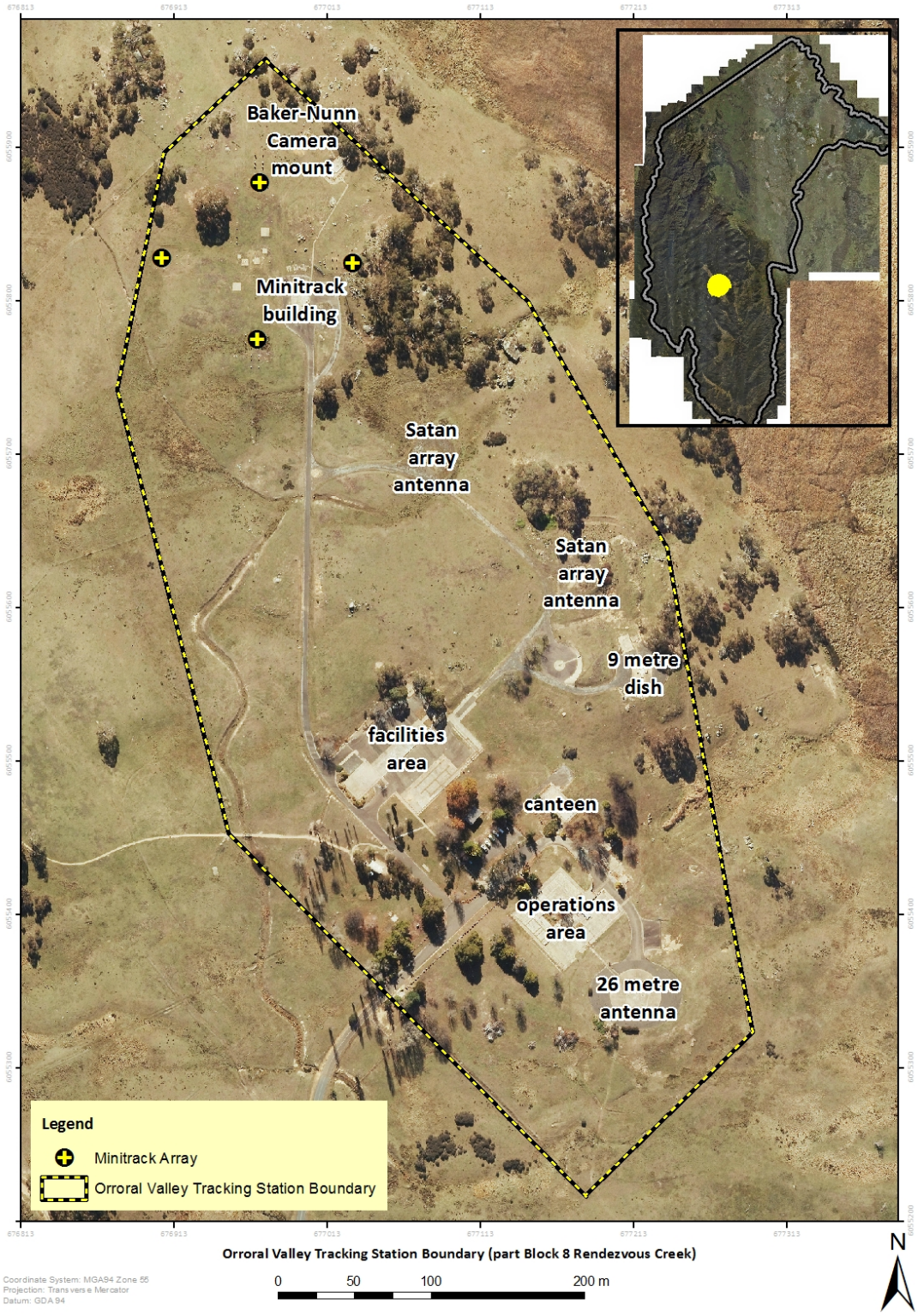

Image 1 Site Boundary, Orroral Valley Tracking Station