Supplementary Appendix to ARTC Track & Civil Code of Practice Airstrips

ETG-00-01

Applicability

SA	WA	SMS

Publication Requirement

Internal / External

Primary Source

Royal Flying Doctor Service Sep 2013, *Airstrip Standards & Reporting Arrangements*.

Document Status

Version #	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
1.5	18 Jan 16	Standards	Stakeholders	Manager Standards	GM Technical Standards xx xx xx

Amendment Record

Amendment Version #	Date Reviewed	Clause	Description of Amendment
1.0	01 May 06		First issue
1.1	23 Oct 06	App 2	Drawing number updated
1.2	20 Feb 07	3.3.2; 4.1; 5.1; 5.4; 6.2	Document revised following audit and review with Alliance Contractor. Inspection frequencies changed, checklists amended, option of using battery lights added, staff training clause added.
1.3	08 Jul 13	App 3	Update and remove Airstrip Detailed Inspection Form (ETG0001F-01). Form is now a standalone document. The new Form

			watermarked 'Sample Only' will be provided in Appendix 3.
1.4	19 Jul 2013	App 1	Update of 'Ownership' and 'Maintenance Responsibility' of Cook location to now Pacific National Pty Ltd, previously Genesee & Wyoming.
1.5	18 Jan 16	All	Rebranded
		App 1 and 7	Delete Ooldea
		3, 4.2, 4.3.2, 4.5, 6.2, 6.4.2, 7.1.1 and App3	Update the reference document to RFDS *Airstrip Standards & Reporting Arrangements*, previously CAAP 92-1(1) *Guideline for Aeroplane Landing Area*.
		App 1	Update of 'Maintenance Responsibility' of Rawlinna to now ARTC, previously Loongana Lime.
		4.2, 4.3.1, 4.4.1, 5.1, 5.2, 5.3.1.1, 5.3.1.2, 6.1.1, 6.3, 6.4.1, 6.4.3, 6.4.4, 6.5, 7.1.2, 7.1.3, 7.2, 7.2.1, 7.3, 8.1, App 3 and App4.	Editorial changes.

Table of Contents

1 Scope

This document specifies requirements for ARTC's remote area airstrips covering:

- Design and rating
- Maintenance
- Inspection, assessment and actions
- Inspection and Actions
- Operations

of aircraft landing areas (airstrips) owned by ARTC, located on the Trans Australian Railway between Tarcoola and Karonie.

See Appendix 1 for a schedule of airstrips adjacent to the TAR.

2 General

ARTC airstrips are used for the following purposes:

- For transport of ARTC, Contractors and third party railway personnel to attend derailment sites
- To evacuate persons in the event of incidents
- To transport ARTC, Contractors and third party railway personnel to remote locations for inspection and management purposes
- For public use

They shall be maintained to a standard to cater for both day and night operation of aircraft with a MTOW of up to 5700kg in general meteorological conditions.

Aircraft with a maximum take-off weight of 5700kg generally have accommodation for 9 persons.

3 References

- Royal Flying Doctor Service (Western Operations), *Airstrip Standards & Reporting Arrangements.* Available via Email: aviationdatacoordinator@rfdswa.com.au.
- ETG0001F-01 Airstrip Detailed Inspection Form

4 Design and Rating

4.1 General

ARTC airstrips shall have a minimum runway length of 1200m (except for 1170m at Loongana) with a minimum width of 15 m and are adequate for aircraft with a MTOW of up to 5700kg for both day and night operation in general meteorological conditions.

For airstrips with 2 runways, only one needs to be 1200m long.

4.2 Runway, approach and take-off areas

Refer to RFDS *Airstrip Standards & Reporting Arrangements*.

There shall be no obstruction of the approach and take-off gradient.

Overhead wires within the approach and take-off areas that do not obstruct the approach and take-off gradients shall be adequately marked with white markers where they pass in line with the central 30m of the airstrip.

Poles or other hard to see objects within the approach and take-off areas shall be marked by painting them white.

Wires or cable obstacles shall be marked with three-dimensional coloured objects, of a size equivalent to a 700 mm diameter sphere, spaced 30m apart.

Fences which cross the approach and take-off areas and do not obstruct the approach and take-off gradient shall be marked with white markers where they pass in line with the central 30m of the airstrip. Typically discs 600mm diameter, or half sheets of galvanised iron should be used.

4.3 Airstrip Surfaces

4.3.1 Runway

The runway surface shall be smooth and well drained and constructed such that minimal deterioration would occur due to use or rainfall runoff. Any gravelled section shall have shoulders (tapered edges) to avoid abrupt changes in the surface material bearing capacity.

4.3.2 Strip width (Run-Off Area) and Fly Over Area

Refer to RFDS *Airstrip Standards & Reporting Arrangements*.

4.4 Obstructions and Other Considerations

4.4.1 Circuit Area

Note that at some ARTC airstrips the ideal condition is not possible due to the existence of communications towers nearby. The towers vary between 45m and 90 m in height, and even though some of them infringe the 1 in 5 limit they do not constitute a hazard to aircraft which are operated at the proper circuit height of 300m above airstrip elevation and do not descend below 180 m until turning to line up on final landing approach. Such towers and other obstacles shall be painted in contrasting colours to their surrounds and display warning illumination at night.

4.4.2 Airstrip Structures

All structures associated with an airstrip, such as fuel sheds and wind indicators, must be located below the 1 in 5 limit and preferably within a limit of a 1 in 7 limit slope from the marked edge of the airstrip.

4.5 Airstrip Markings

Strip markers painted white shall be used to define the prepared limits of airstrips and movement areas. Refer to RFDS *Airstrip Standards & Reporting Arrangements*.

Strip markers shall be placed along the outer edge of the fly over areas (ie marked area is 90m wide).

Strip and flare markers shall to be painted white.

4.6 Aircraft Parking Areas

Where an airstrip is used at a frequency such that more than one aircraft is likely to be on the ground in any given time, an area should be made available to enable aircraft to be parked clear of the landing area and not infringe on any of the clearance standards.

4.7 Wind Indicator

4.7.1 Wind Indicator Positioning

At ARTC aircraft landing areas, usually one wind indicator is sufficient and shall be located as follows:

- On the left hand side, from the usual approach direction, approximately 150 metres along from the approach threshold.
- The 1 in 5 rule applies (see clause 4.4.2). It shall be preferably located so that it is seven times its height back from the marked airstrip edge.
- It shall not be in the area of approach or take-off zones.
- It shall be out in the open where it is not affected by buildings or trees.

A tapering fabric sleeve (windsock), white in colour, is 3.65 m long and 0.9 m in diameter at the larger end on a cane hoop.

4.7.2 Wind Indicator Drawings

Drawings of existing wind indicators are listed in Appendix 2.

5 Maintenance

5.1 Runway and Runway Strip Area

The standards for runway maintenance shall be as shown in Table 1 below:

Table 1

Feature			**Runway [central 15m minimum width]**	**Runway Strip [45m width minimum]**
Grass coverage	Sparse	Height not to exceed	450mm	600mm
	Medium		300mm	450mm
	Dense		150mm	300mm
Max size of stones	Isolated stones		25mm	50mm
	Deep layer of stones		50mm	75mm
Surface cracks	Width not to exceed		40mm	75mm

Grass growth shall be controlled by slashing or grading to comply with the above, slashing being the preferred method.

5.2 Markers

All markers shall be maintained and painted as necessary such that they are readily visible. (Refer Sections 4.5 and 5.1)

5.3 Maintenance Work

5.3.1 Unserviceability Marking

5.3.1.1 Whole Airstrip Unserviceable

If the whole airstrip is unserviceable, due to repair work in progress for example, a WHITE CROSS made up of strips of material with a length of 6m and width of 1m is placed on the signal area near the windsock to indicate temporary unserviceability. Four sheets of corrugated iron may be used for each leg of the cross.

Notify Train Control when the airstrip is found to be unserviceable and when the airstrip is again available for use.

5.3.1.2 Airstrip Partly Unserviceable

If an airstrip is partly unserviceable, due to damage or repairs for example, the DISPLACED THRESHOLD is marked by placing a row of strip markers at the new threshold location and placing a WHITE CROSS, made up of strips of material with a length of 6m and width of 1m, on the damaged end of the airstrip.

Four sheets of corrugated iron may be used for each leg of the cross.

Notify Train Control of the change in threshold location and when the airstrip is again available for unrestricted use.

6 Inspection, Assessment and Actions

6.1 Unscheduled Inspections

6.1.1 Unscheduled General Inspections

Unscheduled general inspections shall be carried out following heavy rain or other abnormal weather, prior to and following significant use of the airstrip and on any other occasion when suspected defects may occur, such as following reports from users of airstrips and patrol inspections.

Unscheduled inspections shall look for defects and conditions that may affect, or indicate problems that affect the serviceability of the airstrip, including assessment of the runway and runway strip area. See Clause 5.1.

6.1.2 Unscheduled Vegetation Surveys

Surveys shall be carried out at intervals depending on site conditions, to ensure that infringements of clearances (approach/take-off) on account of vegetation growth and/or erection of new structures do not occur. The intervals between each survey shall take account of:

- Rate of vegetation and tree growth, dependant on seasonal rainfall
- Erection of any structures that may affect clearances
- Type of vegetation and tree growth in area

6.2 Assessment of Runway Surface Condition (for aircraft up to 5700 kg MTOW)

Refer to RFDS *Airstrip Standards & Reporting Arrangements*.

6.3 Detailed Inspections and Actions

The following items shall be inspected at intervals no greater than 3 months and the actions listed taken as necessary to ensure that the airstrip is available for operation at all times.

All the following shall be documented, by using ETG0001F-01 Airstrip Detailed Inspection Form during the inspection.

1. Assessment of the surface condition of the runway and runway strip area. (See clause 5.1)
2. All markers, including flare marker plates, are in good condition (including their paint) and are correctly positioned. Any missing to be replaced. The area around to be kept clear of growth to ensure markers can be located easily.
3. The flare storage cabinet is intact, in good condition, neat and tidy and any faulty lock replaced. Laminated instruction sheets are displayed on inside of door and a loose copy available.
4. The windsock is undamaged and serviceable. The rotating vane and housing are lubricated to ensure rotation of the windsock.
5. The windsock mast is securely fixed and upright.
6. The area within the wind indicator circle is free of weeds and blackened or in a contrasting colour.

The following items are located in flare storage cabinet, which should be located near the wind indicator area:

1. Flare markers and threshold lanterns are fuelled up especially after use.
2. E-flare batteries are present and still have charge (i.e. they can operate the light). Batteries not to be stored within e-flare.
3. Wicks of flare markers and threshold lanterns are trimmed.
4. The glass in the threshold lanterns is clean and intact.
5. Adequate fuel (diesel and kerosene) is available for marker flares and threshold lanterns.
6. Adequate number of flares is on hand, checked against inventory.
7. Adequate number of good matches on hand.

6.4 Lighting for night operations

6.4.1 General

Lighting for night operations consists of white lights along both sides of the strip, green lights at each end and some form of illumination to indicate the wind direction.

The lights for night operations may be suitable battery operated lights or flares and lanterns burning diesel or kerosene.

The lights for night operations (flares, lanterns or battery operated lights) are housed in the flare storage cabinet when not in use. The flare storage cabinet has a door secured by a combination or "S" lock. The flare storage cabinet should be located near the wind indicator area.

6.4.2 Runway Lighting

Lighting should be spaced as required by RFDS *Airstrip Standards & Reporting Arrangements*.

Diesel flares are spaced at 90m intervals along the strip, i.e. in line with the airstrip markers. The flares are to be spaced centrally at a width of 30m.

6.4.3 Threshold Lighting

Green threshold lights should be located 3m outside the end white flares. These green lights are used to mark the extremities of the landing area. Kerosene hurricane lanterns may be used for this purpose.

6.4.4 Windsock Lighting

The direction of the windsock must be indicated to the pilot so that the wind direction can be determined.

The methods used are:

1. Flares: 'T' type pattern.
2. Vehicle Headlights - When a road vehicle is available, the vehicle's lights can be used to indicate the wind direction by parking the vehicle at the indicator circle with headlights on so that the vehicle is facing the windsock and pointing against the wind.

6.5 Record of Strip Information

The following information shall be recorded on a landing strip diagram (see Appendix 5) and kept up to date:

1. Location name.
2. Latitude and Longitude (to accuracy of one minute). The latitude and longitude of the airstrip to be measured at the mid length of the strip on the northern most side for single strips and at the northern most intersection of the strip boundaries for locations with two strips.
3. Altitude above mean sea level (in meters) of the mid length of the strip on the northernmost side for single strips and at the northern most intersection of the strip boundaries for locations with two strips.
4. Magnetic bearing of each strip (to accuracy of 10).
5. Length of each strip (to accuracy of 5m).
6. Width of each strip (to accuracy of 1m).
7. General location description (eg.10km west of Salt Lake).
8. Prominent cautionary note indicating the presence of any nearby structures. NOTE: All heights to be expressed in meters.
9. Details of strip surface and any comments (e.g. may be unserviceable after rain or displaced threshold).
10. Strip diagram to include location of wind indicator and flare storage cabinet.

7 Operations

7.1 Operating Procedures

7.1.1 General

Refer to RFDS *Airstrip Standards & Reporting Arrangements*.

7.1.2 Bird Hazard Management

In order to minimise the hazard of birdstrike, in particular emu nests, on aircraft using ARTC airstrips, the bird hazard shall be monitored and assessed. Where the presence of birds is determined to be a hazard to airstrip operations, action should be taken to discourage their presence on or in the vicinity of the aerodrome.

7.1.3 Emergency Plans

The emergency plan at ARTC airstrips shall consist of a list of emergency contacts kept in the flare storage cabinet. The list of contacts (phone and radio) should include:

- Train Control
- Royal Flying Doctor
- Civil Aviation Safety Authority
- Emergency Services – Police, Hospitals, Fire Services.

7.1.4 Security

Any breaches of airstrip security must be reported to ARTC.

7.2 Responsible Person

The Delivery Manager is responsible for all matters affecting the airstrip including inspections.

These matters include:

- Marking of unserviceability areas
- Reporting to respective reporting centres
- Arranging for routine maintenance works
- Safety during airstrip repair works

Inspections must be undertaken in accordance with Section 5, and any unserviceability found marked, the matter must be reported by the quickest possible means to the reporting centre and then, the unserviceability repaired or corrected.

Note that when making a decision on serviceability; always err on the side of safety.

7.2.1 Staff Training

The Delivery Manager shall arrange to brief all staff that may be required to attend airstrips for night operations in all aspects of their duties, including laying out all emergency lighting and/or flares.

7.3 Instructions for airstrip lighting for night operations

Flares, or other lights provided must be laid out in accordance with the instruction sheet contained in the flare storage cabinet.

The flares and threshold lanterns, or other lights provided should be laid out and lit 30 minutes prior to the aircraft's time of arrival and should remain lit until 30 minutes after the aircraft's departure. The windsock must be illuminated prior to the aircraft's arrival.

Once all the flares are lit, or other lights switched on, someone must be in attendance at all times to ensure that:

- All flares or lights remain illuminated

- No fire danger exists
- Appropriate action is taken in the event of accident on landing or take-off

If for any reason it is unsafe for an aircraft to land (e.g. flare lights unable to be lit), Train Control is to be advised and this information relayed to the aircraft.

At a two (2) airstrip location, the strip aligned closest to the wind direction should be used or if the wind direction favours both strips, the longest strip should be used.

8 Miscellaneous

8.1 Instructions and Data Sheets

Copies of Instructions and information sheets, suitably protected, shall be maintained in all flare storage cabinets and in the rest houses along the TAR.

9 Appendix 1 – Schedule of ARTC Aircraft Landing Areas Adjacent to TAR

Location	Approx Km	Runway Dimensions (metres) & Designations (where applicable)	Owner	Maintenance Responsibility
Tarcoola	504	09/27 – 1310 x 65, 04/22 – 1280 x 70	SA Govt	ARTC
Wynbring	606	1260 x 90	ARTC	ARTC
Barton	694	1210 x 50	ARTC	ARTC
Hughes	1002	1210 x 60	Crown	ARTC
Reid	1106	1210 x 60	Crown	ARTC
Loongana	1240	11/29 – 1170 x 40, 22/04 – 900 x 35	Crown	ARTC
Haig	1331	1200 x 45	ARTC	ARTC
Kitchener	1512	1210 x 60	ARTC	ARTC
Zanthus	1572	1220 x 65	ARTC	ARTC
Coonana	1611	1200 x 60	Crown	ARTC
Karonie	1670	1200 x 60	Crown	ARTC

Note: The Aircraft Landing Areas listed below have the following ownership and maintenance responsibilities.

Location	Approx Km	Runway Dimensions (metres) & (Designations where applicable)	Owner	Maintenance Responsibility
Kingoonya	426	14/32 – 1590 x 60, 04/22 – 1190x60	Mc Bride Pty Ltd	McBride Pty Ltd
Cook	914	09/27 – 1460 x 90, 17/35 – 1360 x 90	Pacific National Pty Ltd	Pacific National Pty Ltd
Forrest	1138	18/36 – 1519x45, 09/27 – 1349x45	WA Govt	Fayburn Pty Ltd
Rawlinna	1403	1200 x 60	ARTC	ARTC

10 Appendix 2 – Reference Drawings

Drawing No.	Description	Date
CCE 1607	Wind Indicator, General Arrangement Type 1	
CCE D-20	Wind Indicator, General Arrangement Type 2 (2 sheets)	30/12/80
CCE D-237	Lighting Flares for Aircraft Night Landing	15/10/76
CCE D-264	Wind Indicator Mounting – Footing Below Ground	25/3/77
CCE E-121	Steel Counterweights for Wind Indicator Mounting	3/1/78
CCE B-319	Ladders for Wind Indicator Mounting	19/10/78
ARTCS3060151	8m Wind Indicator Pole Seesaw – Baseplate Mounted Riverton Design	18/9/98

11 Appendix 3 – Instructions for Lighting Flares for Night Landings

1. Airstrip Illumination

   The 4 threshold lights (green e-flares) are to be set out 3 m from the end on the rubber bases provided.

   The white e-flares are to be set out at 90m maximum spacing along the runway and at a width of 30m on the rubber bases provided. If unable to activate all the flares, the gap is to be left in the middle of the airstrip; not at or near the ends of the strip.

2. Emergency Lighting of Flares

   Instructions for emergency lighting of flares.

   2.1 Strip Flares

   - ☐ Unscrew knurled knob, remove match box container and protection cap.
   - ☐ Fill with fuel (diesel or kerosene)
   - ☐ Set wick 15mm above wick holder. Light with storm matches provided. One filling will be sufficient for 18-20 burning times.
   - ☐ After extinguishing light, clean with old rag. Brush out all soot from around the cone, replace protection cap and match box holder and screw tight.
   - ☐ Use only genuine wicks.

   2.2 Threshold Lights

   - ☐ Are to be filled with kerosene only.
   - ☐ These flares must be set out and lit first for all night landings.

   2.3 Windsock Illumination

   - ☐ Using white e-flare – Place in “T” pattern – See RFDS *Airstrip Standards & Reporting Arrangements*.
   - ☐ Using Vehicle Headlights – When a road vehicle is available, park the vehicle at the wind indicator circle with the headlights on so that the vehicle is facing the windsock and pointing against the wind - See RFDS *Airstrip Standards & Reporting Arrangements*.

Instructions for emergency lighting of e-flares

- ☐ Insert 2 D-cell Alkaline battery into each flare.
- ☐ Flick the ON switch.
- ☐ Drop into rubber base.

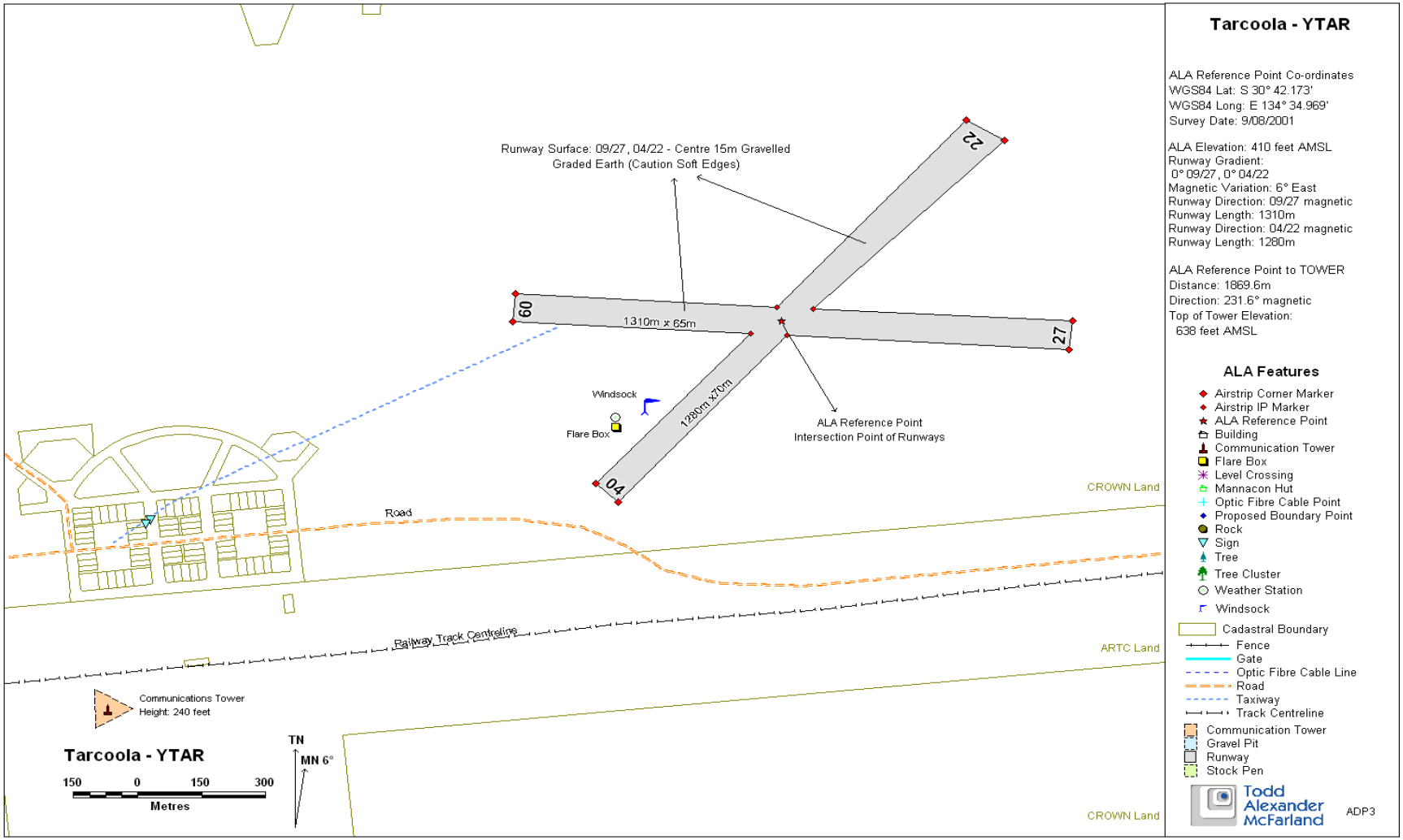
Kerosene flares to be used as back up to e-flares.

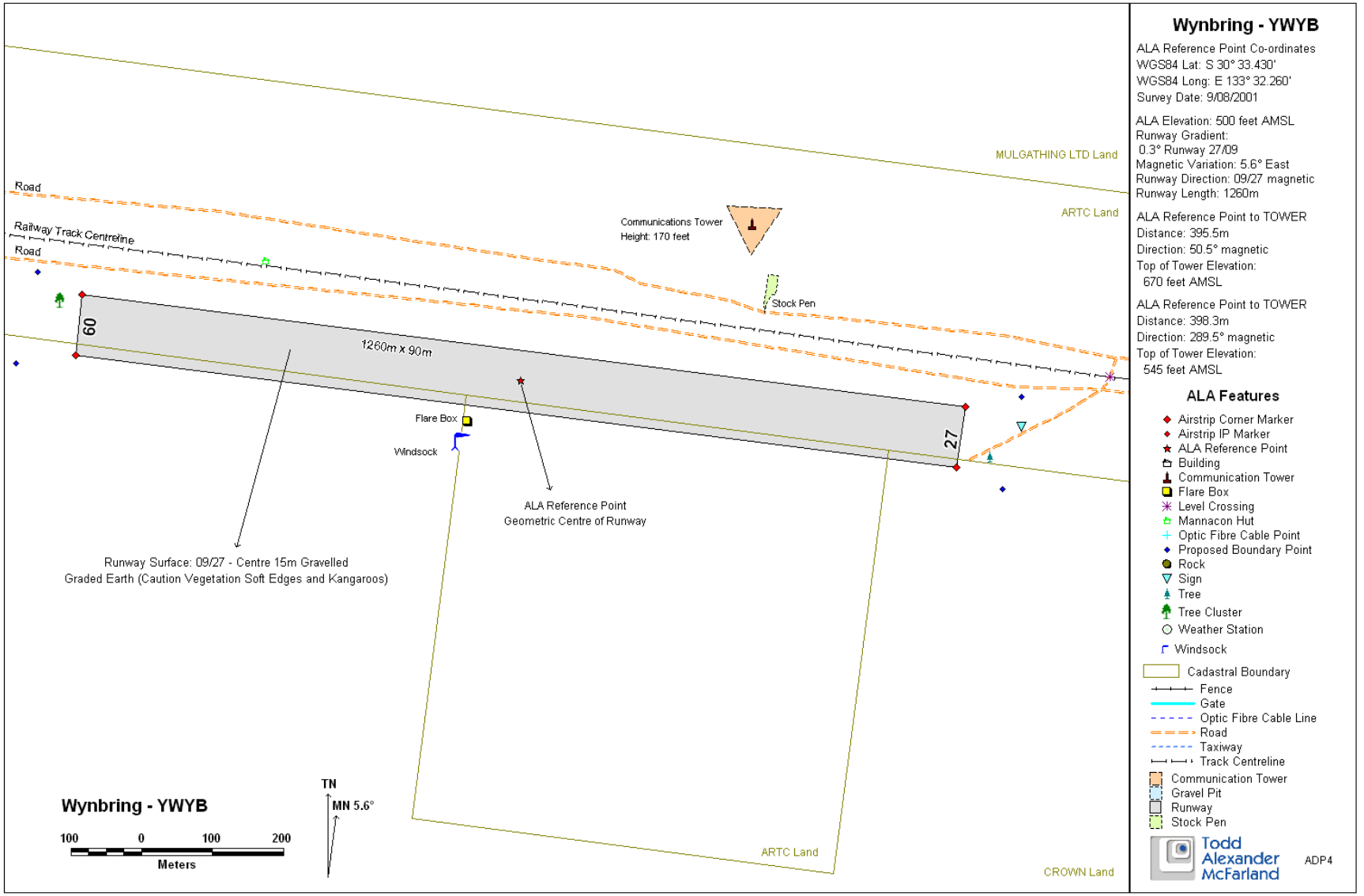
12 Appendix 4 – Flare Storage Cabinet Inventory

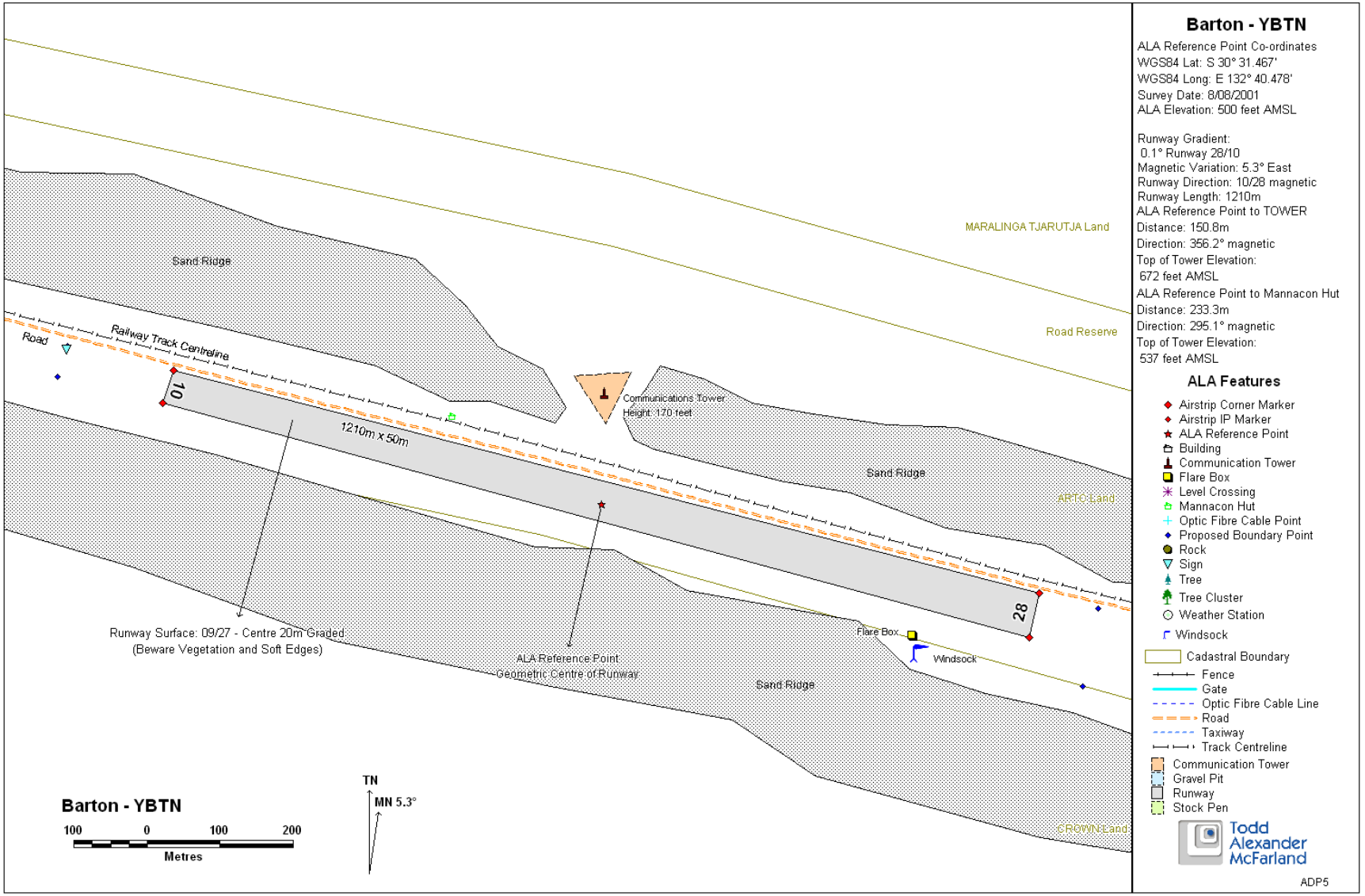
Location:	

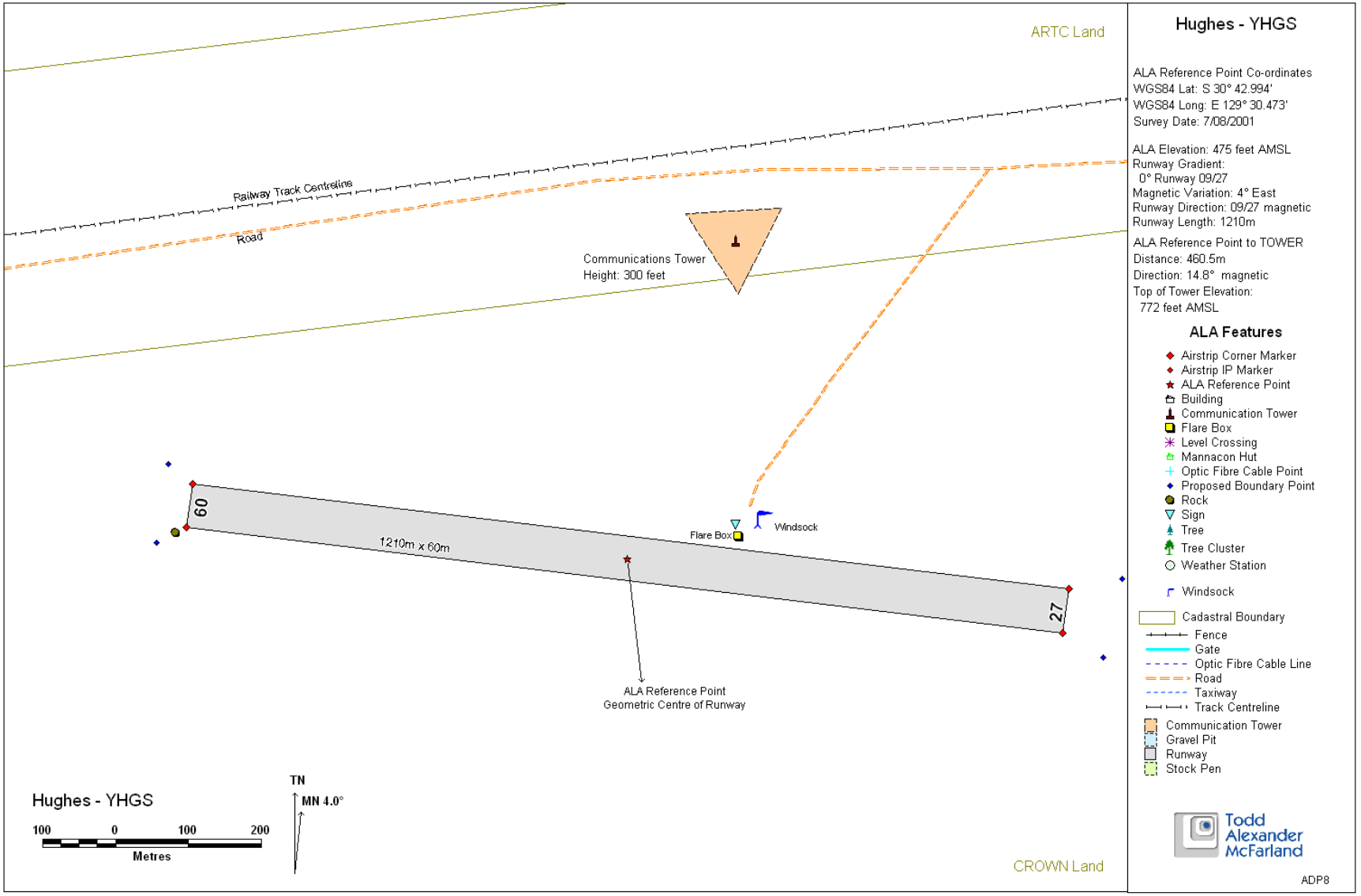
Item	**No on hand**
Threshold Lanterns	
Diesel Strip Flares	
Windsock Flares	
Battery Operated Lights	
Containers of Storm Matches	
Instruction Sheets (affixed to door)	
Instruction Sheets (loose)	
Diesel Fuel Containers and Fuel	
Kerosene Fuel Containers and Fuel	
Batteries	
Green E-flares	
White E-flares	
Aviation Plates	
E-flare batteries	

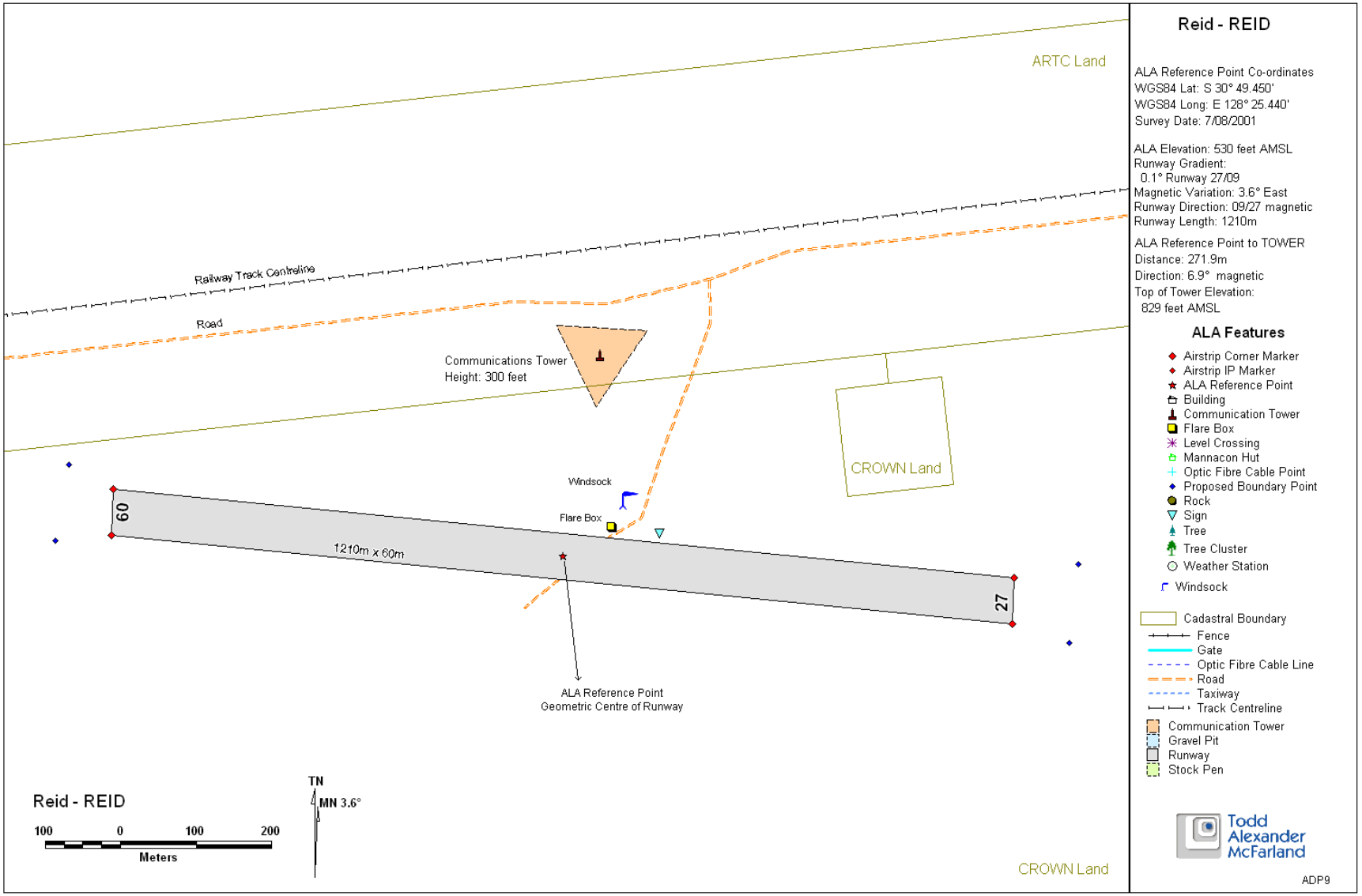
13 Appendix 5 – Airstrip Site Layouts

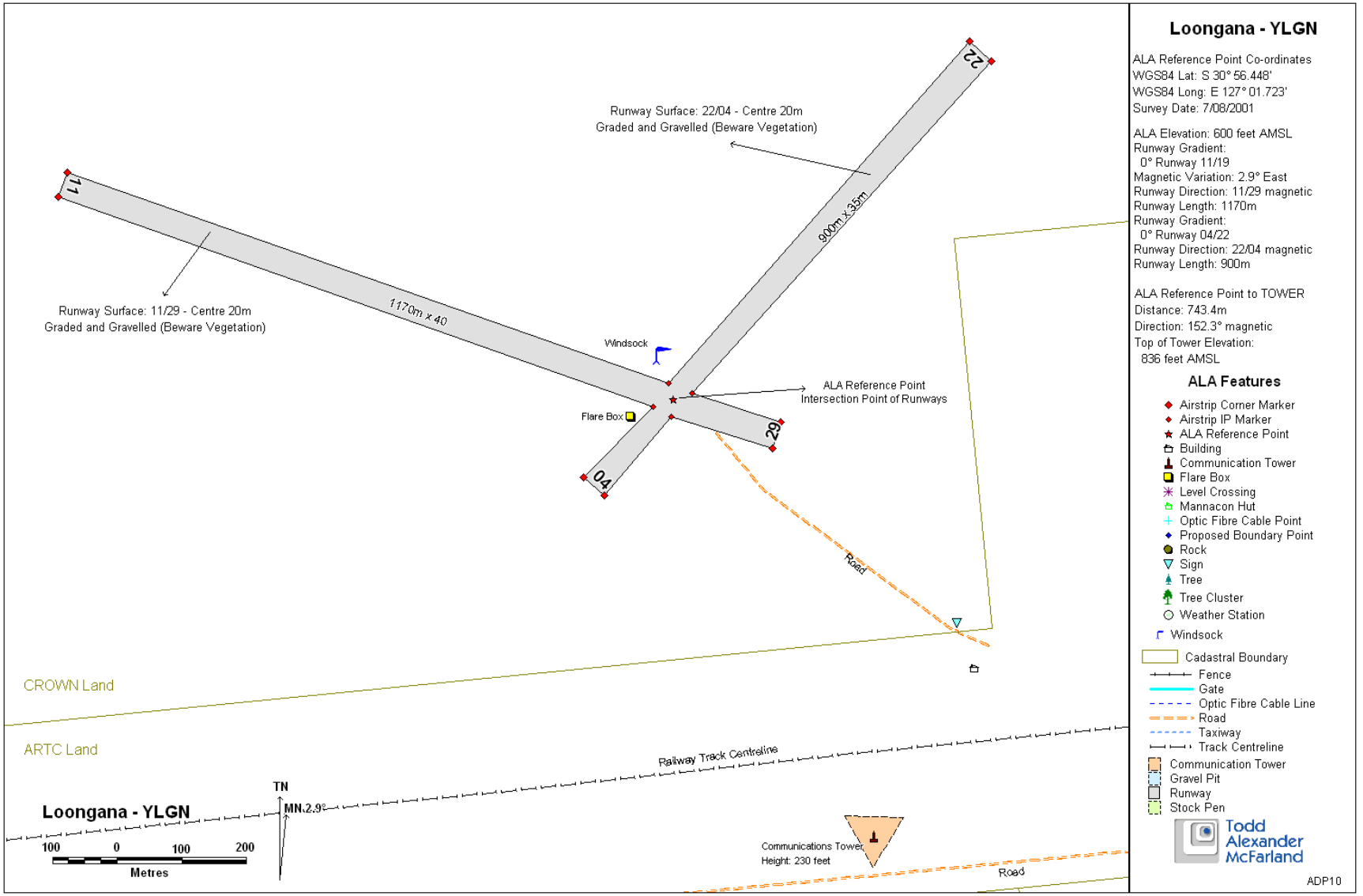


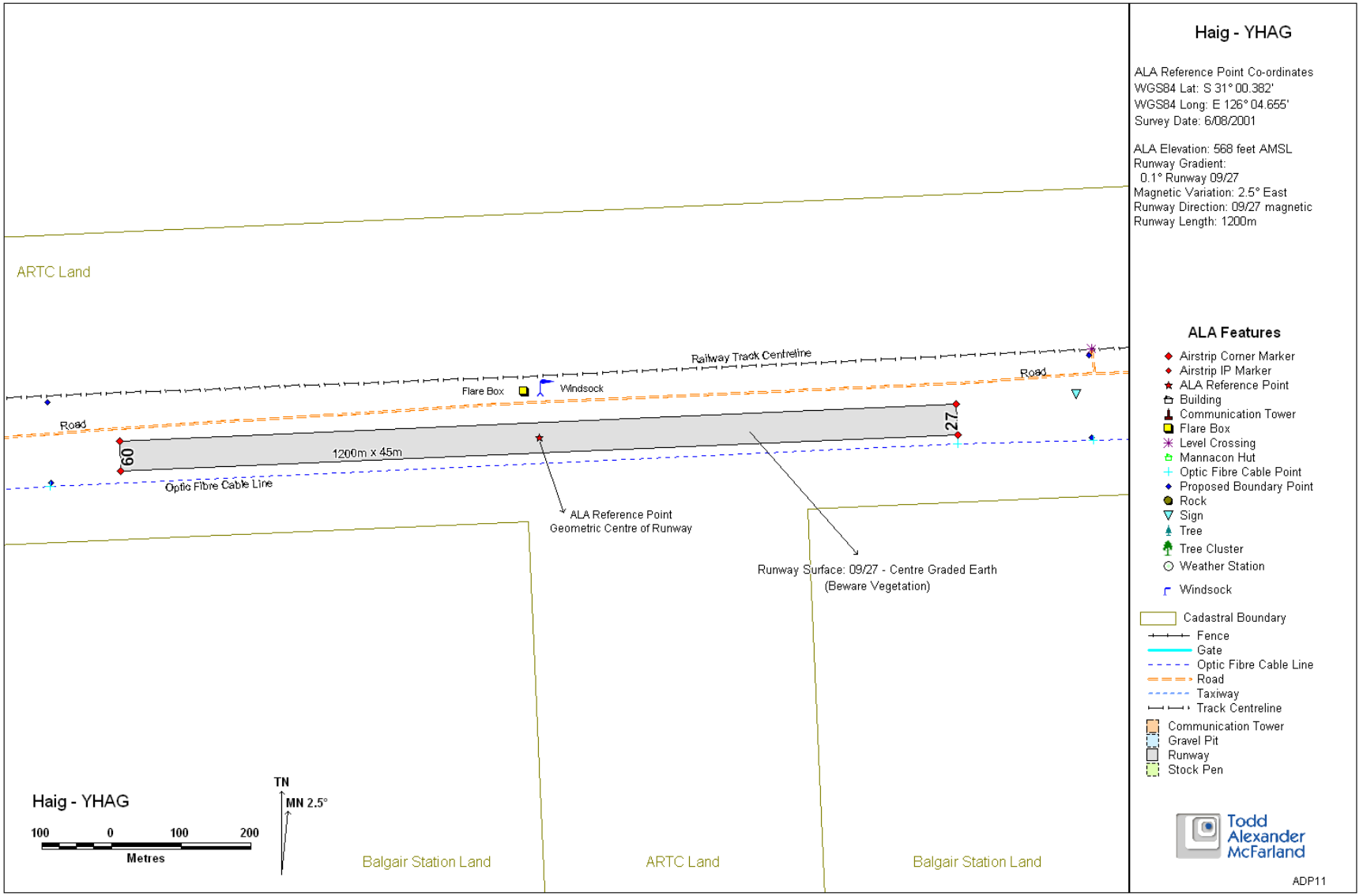

MULGATHING LTD Land
ARTC Land
Road
Railway Track Centreline
Road
Communications Tower
Height: 170 feet
Stock Pen
60
1260m x 90m
27
Flare Box
Windsock
ALA Reference Point
Geometric Centre of Runway
Runway Surface: 09/27 - Centre 15m Gravelled
Graded Earth (Caution Vegetation Soft Edges and Kangaroos)
Wynbring - YWYB
100 0 100 200
Meters
TN
MN 5.6°
ARTC Land
CROWN Land
Wynbring - YWYB
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 33.430'
WGS84 Long: E 133° 32.260'
Survey Date: 9/08/2001
ALA Elevation: 500 feet AMSL
Runway Gradient:
0.3° Runway 27/09
Magnetic Variation: 5.6° East
Runway Direction: 09/27 magnetic
Runway Length: 1260m
ALA Reference Point to TOWER
Distance: 395.5m
Direction: 50.5° magnetic
Top of Tower Elevation:
670 feet AMSL
ALA Reference Point to TOWER
Distance: 398.3m
Direction: 289.5° magnetic
Top of Tower Elevation:
545 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP4

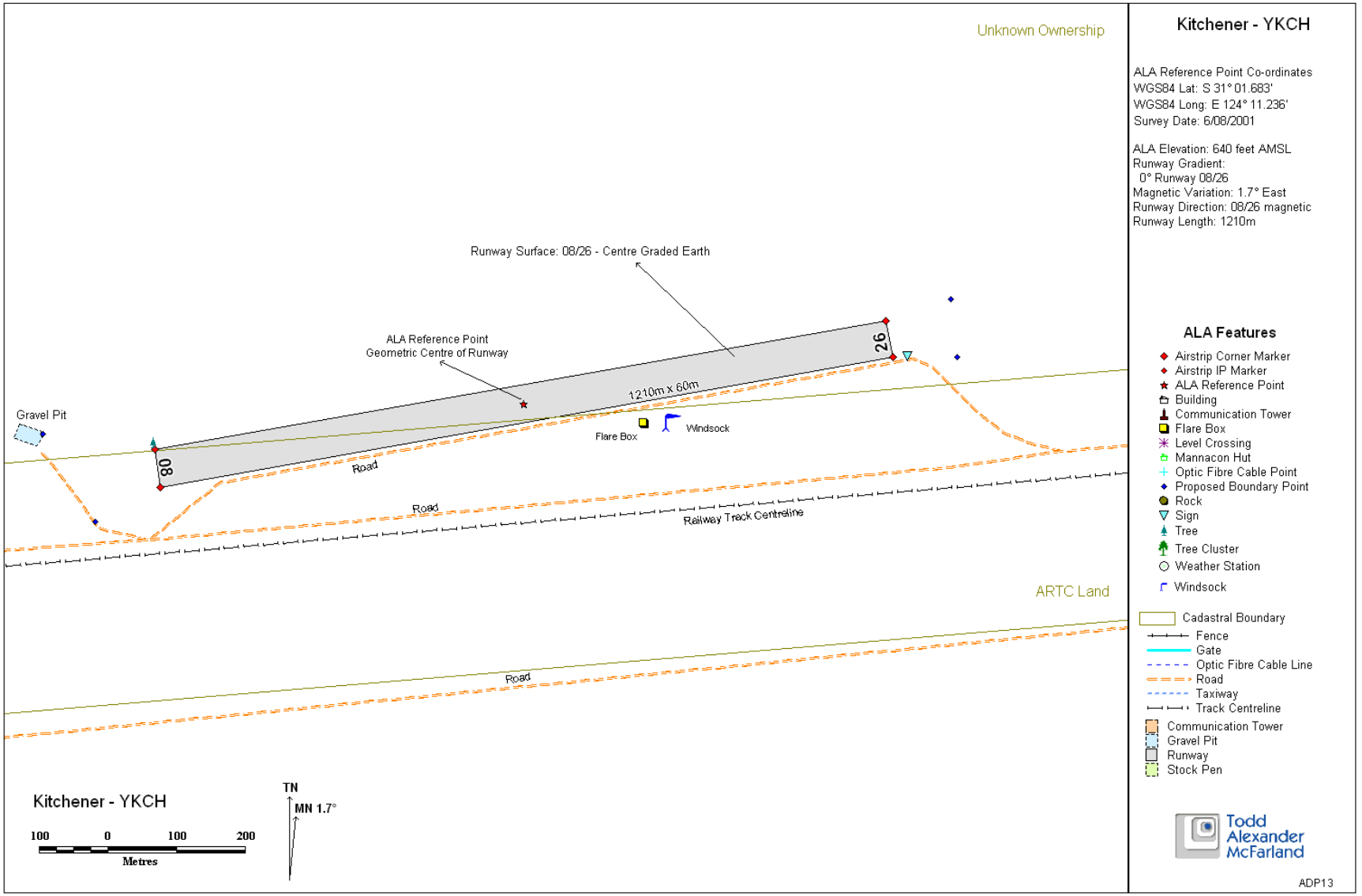

Barton - YBTN
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 31.467'
WGS84 Long: E 132° 40.478'
Survey Date: 8/08/2001
ALA Elevation: 500 feet AMSL
Runway Gradient:
0.1° Runway 28/10
Magnetic Variation: 5.3° East
Runway Direction: 10/28 magnetic
Runway Length: 1210m
ALA Reference Point to TOWER
Distance: 150.8m
Direction: 356.2° magnetic
Top of Tower Elevation:
672 feet AMSL
ALA Reference Point to Mannacon Hut
Distance: 233.3m
Direction: 295.1° magnetic
Top of Tower Elevation:
537 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP5
MARALINGA TJARUTJA Land
Road Reserve
Sand Ridge
Railway Track Centreline
Road
10
1210m x 50m
28
Communications Tower
Height: 170 feet
Sand Ridge
ARTC Land
Runway Surface: 09/27 - Centre 20m Graded
(Beware Vegetation and Soft Edges)
ALA Reference Point
Geometric Centre of Runway
Flare Box
Windsock
Sand Ridge
CROWN Land
Barton - YBTN
100 0 100 200
Metres
TN
MN 5.3°

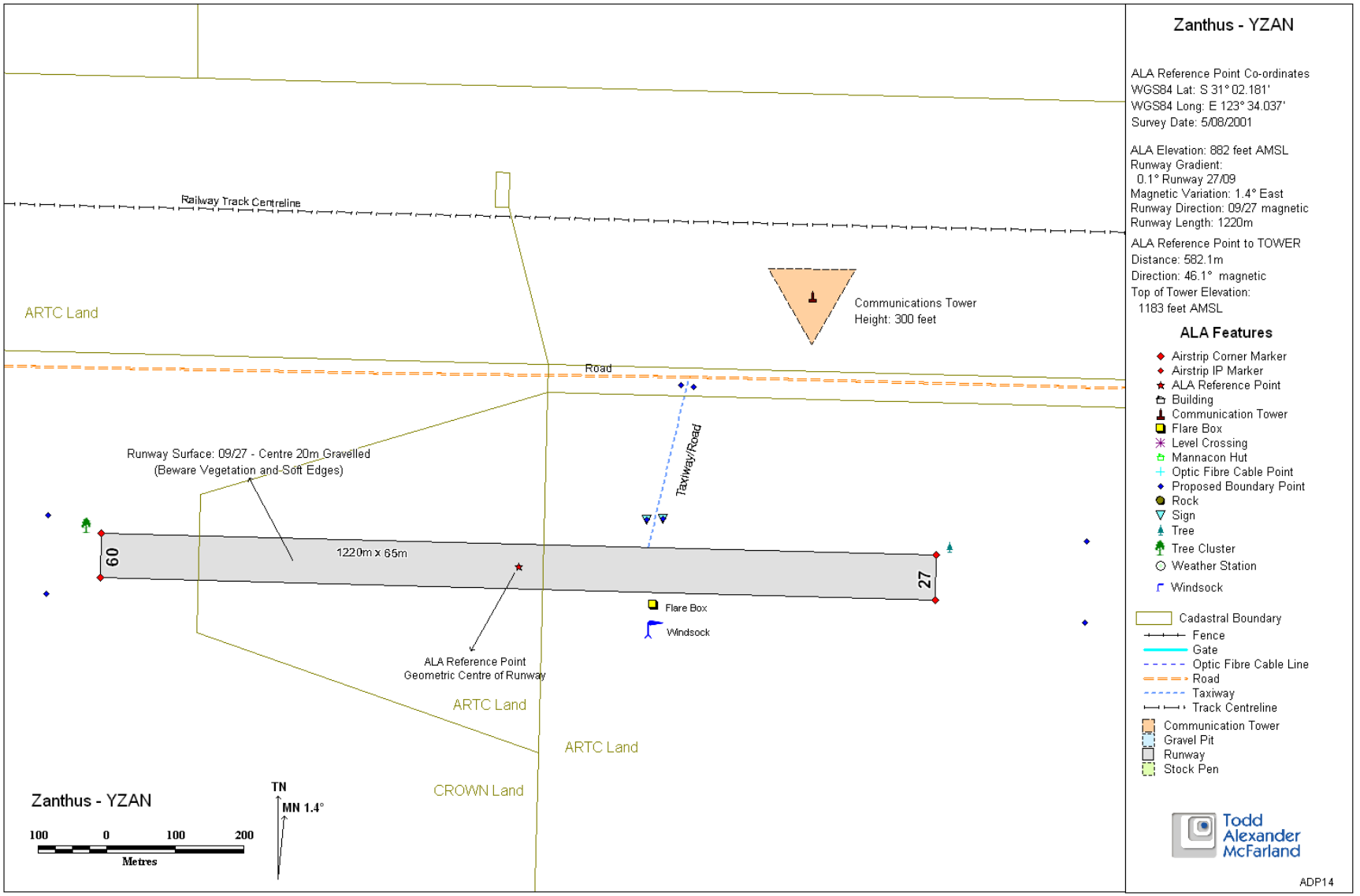

ARTC Land
Railway Track Centreline
Road
Communications Tower
Height: 300 feet
60
1210m x 60m
Flare Box
Windsock
27
ALA Reference Point
Geometric Centre of Runway
Hughes - YHGS
100 0 100 200
Metres
TN
MN 4.0°
CROWN Land
Hughes - YHGS
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 42.994'
WGS84 Long: E 129° 30.473'
Survey Date: 7/08/2001
ALA Elevation: 475 feet AMSL
Runway Gradient:
0° Runway 09/27
Magnetic Variation: 4° East
Runway Direction: 09/27 magnetic
Runway Length: 1210m
ALA Reference Point to TOWER
Distance: 460.5m
Direction: 14.8° magnetic
Top of Tower Elevation:
772 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP8

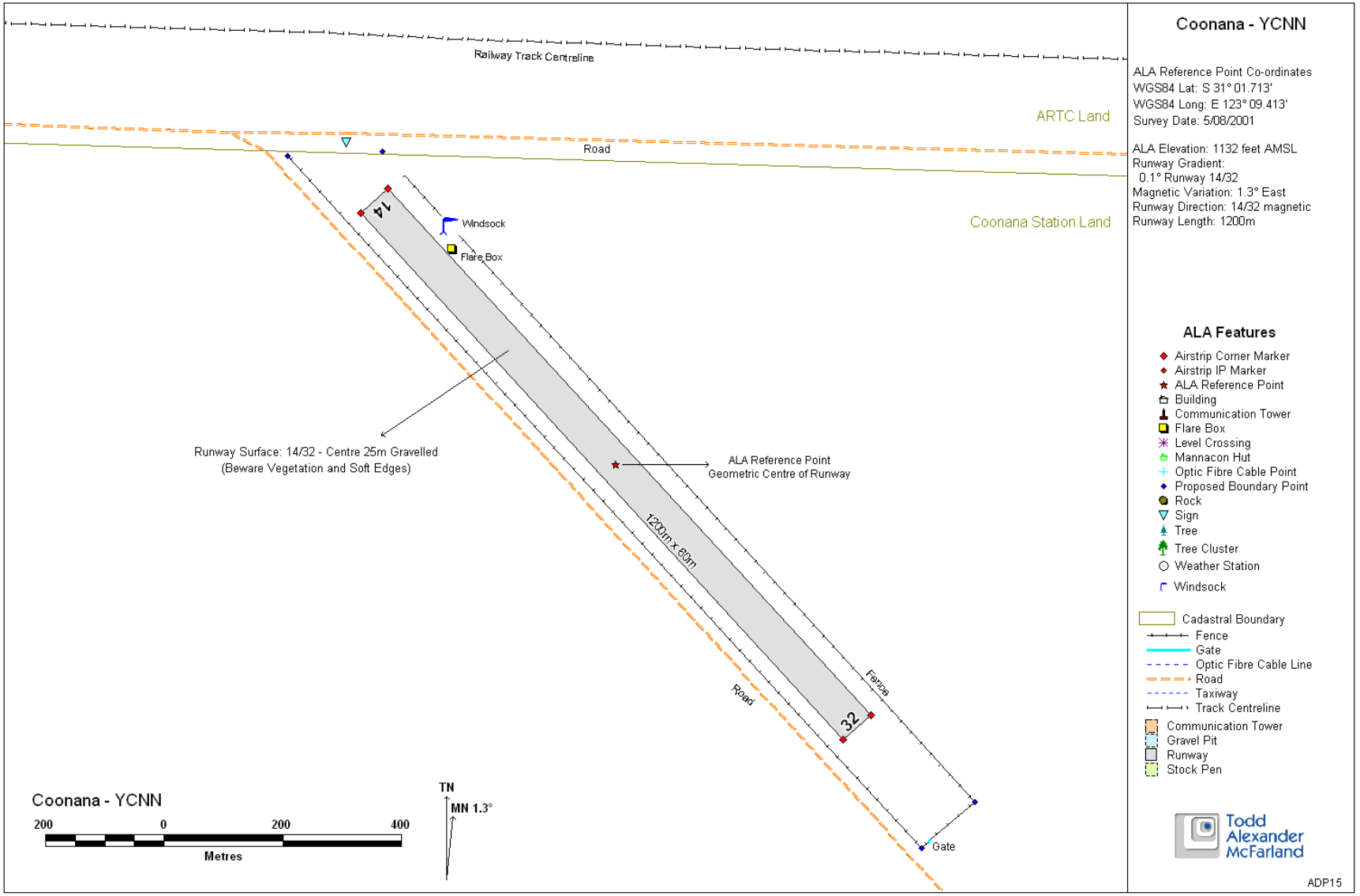

Reid - REID
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 49.450'
WGS84 Long: E 128° 25.440'
Survey Date: 7/08/2001
ALA Elevation: 530 feet AMSL
Runway Gradient:
0.1° Runway 27/09
Magnetic Variation: 3.6° East
Runway Direction: 09/27 magnetic
Runway Length: 1210m
ALA Reference Point to TOWER
Distance: 271.9m
Direction: 6.9° magnetic
Top of Tower Elevation:
829 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP9
ARTC Land
Railway Track Centreline
Road
Communications Tower
Height: 300 feet
CROWN Land
Windsock
Flare Box
60
1210m x 60m
27
ALA Reference Point
Geometric Centre of Runway
Reid - REID
100 0 100 200
Meters
TN
MN 3.6°
CROWN Land

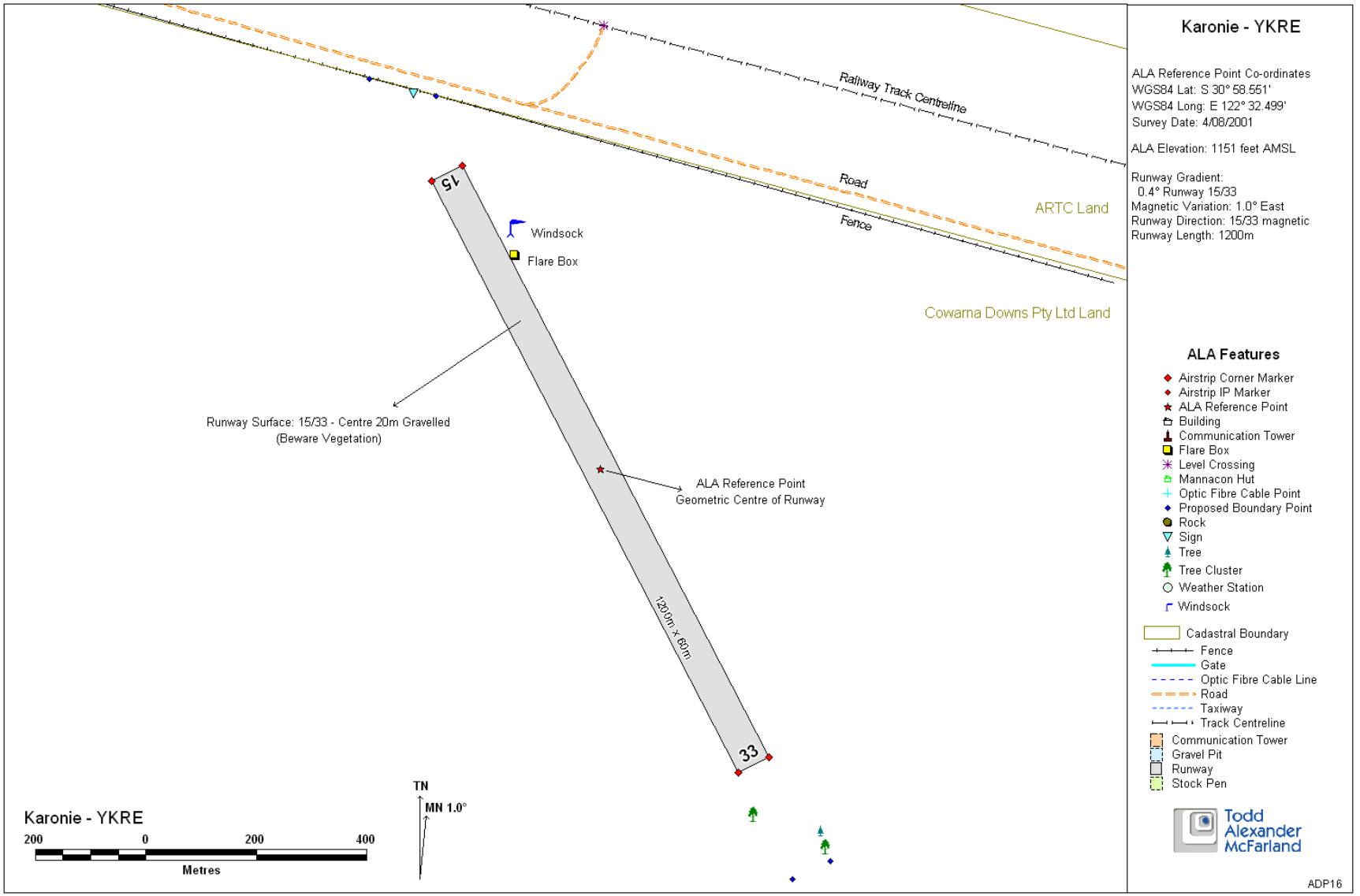

Loongana - YLGN
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 56.448'
WGS84 Long: E 127° 01.723'
Survey Date: 7/08/2001
ALA Elevation: 600 feet AMSL
Runway Gradient:
0° Runway 11/19
Magnetic Variation: 2.9° East
Runway Direction: 11/29 magnetic
Runway Length: 1170m
Runway Gradient:
0° Runway 04/22
Runway Direction: 22/04 magnetic
Runway Length: 900m
ALA Reference Point to TOWER
Distance: 743.4m
Direction: 152.3° magnetic
Top of Tower Elevation:
836 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP10
Runway Surface: 22/04 - Centre 20m
Graded and Gravelled (Beware Vegetation)
Runway Surface: 11/29 - Centre 20m
Graded and Gravelled (Beware Vegetation)
1170m x 40
900m x 35m
11
22
29
04
Windsock
Flare Box
ALA Reference Point
Intersection Point of Runways
Road
CROWN Land
ARTC Land
Railway Track Centreline
TN
MN.2.9°
Loongana - YLGN
100 0 100 200
Metres
Communications Tower
Height: 230 feet
Road

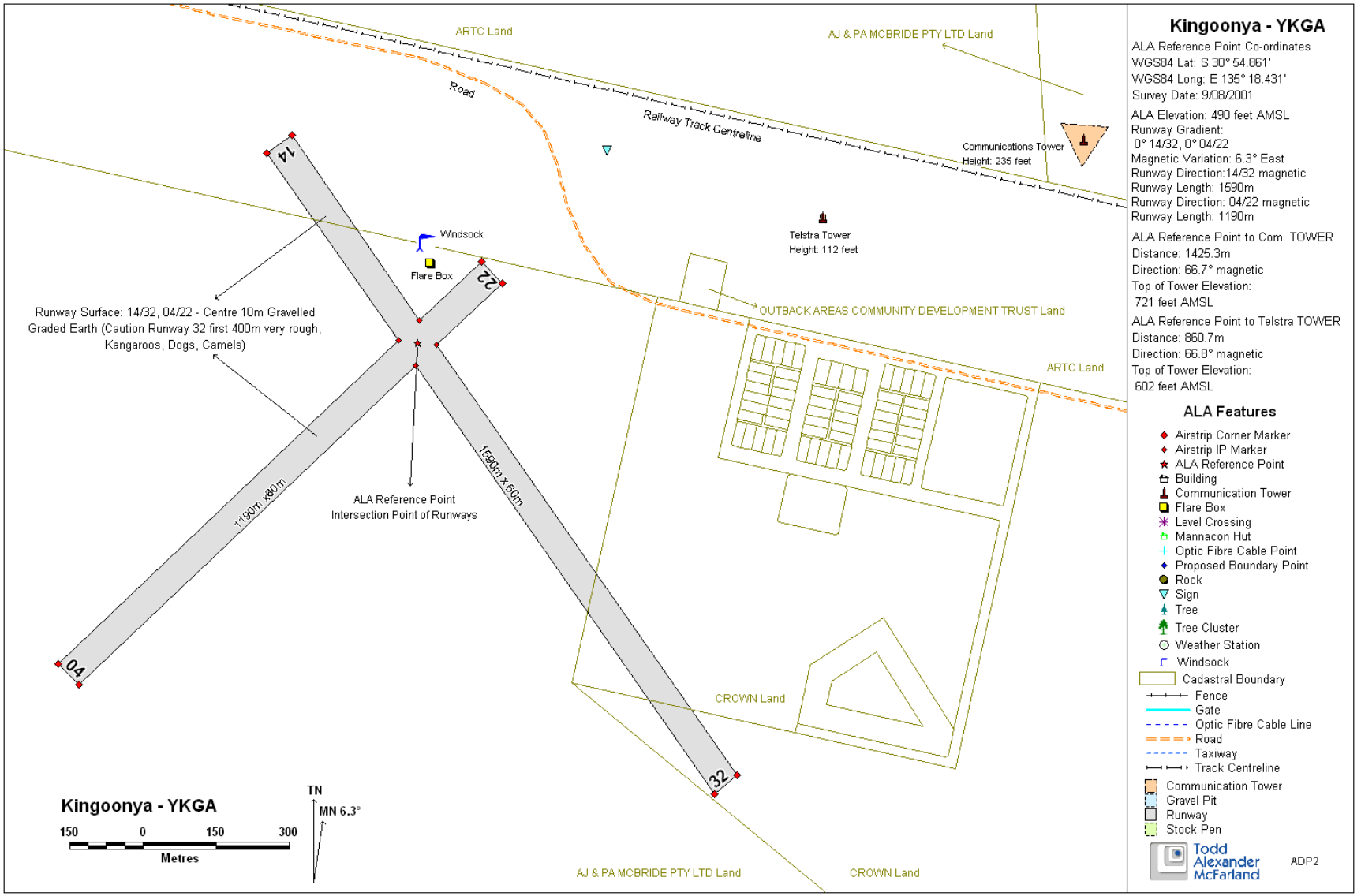

Haig - YHAG
ALA Reference Point Co-ordinates
WGS84 Lat: S 31° 00.382'
WGS84 Long: E 126° 04.655'
Survey Date: 6/08/2001
ALA Elevation: 568 feet AMSL
Runway Gradient:
0.1° Runway 09/27
Magnetic Variation: 2.5° East
Runway Direction: 09/27 magnetic
Runway Length: 1200m
ARTC Land
Railway Track Centreline
Road
Flare Box
Windsock
Road
09
27
1200m x 45m
Optic Fibre Cable Line
ALA Reference Point
Geometric Centre of Runway
Runway Surface: 09/27 - Centre Graded Earth
(Beware Vegetation)
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Haig - YHAG
TN
MN 2.5°
100 0 100 200
Metres
Balgair Station Land
ARTC Land
Balgair Station Land
Todd Alexander McFarland
ADP11

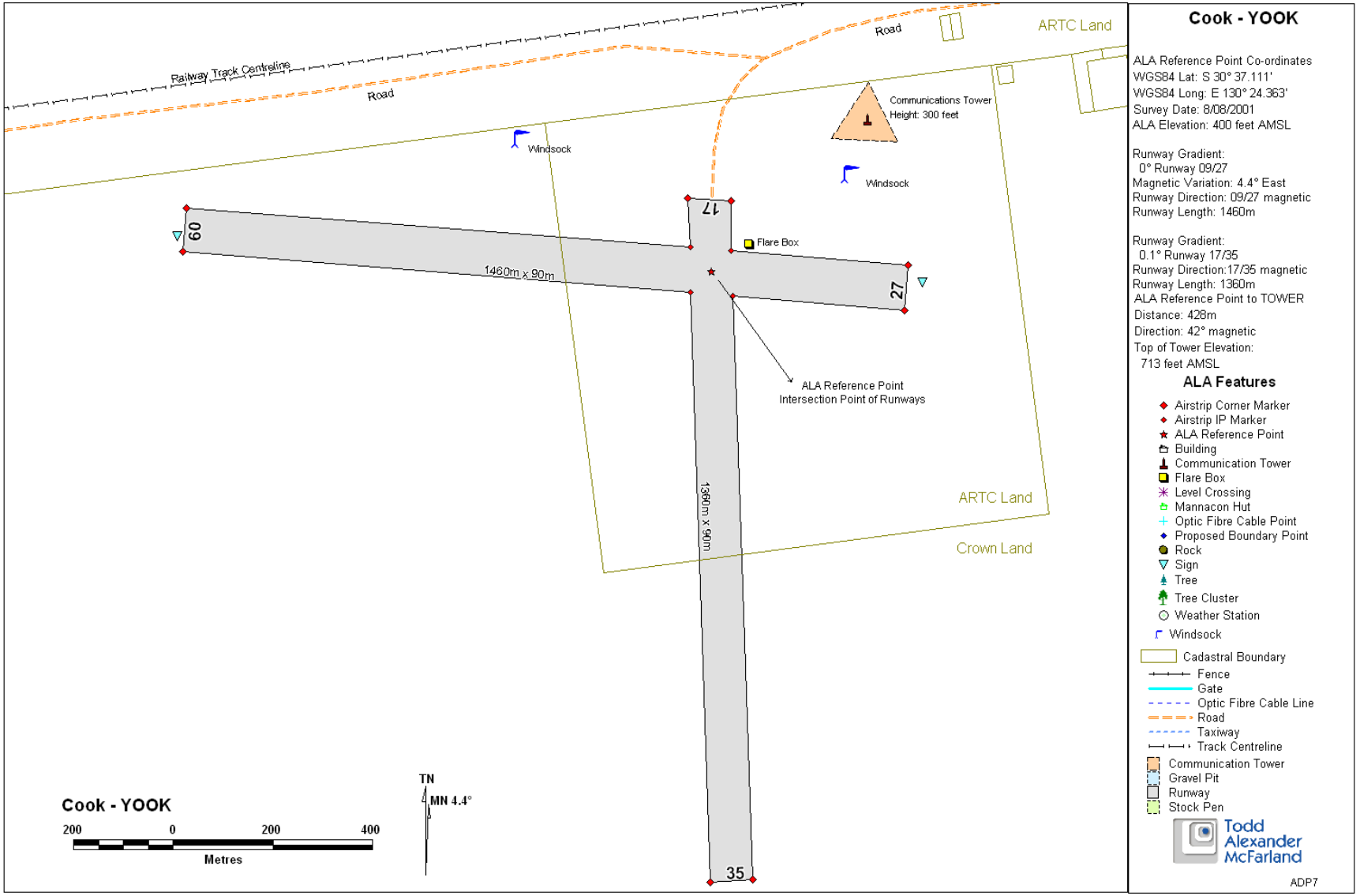

Unknown Ownership
Runway Surface: 08/26 - Centre Graded Earth
ALA Reference Point
Geometric Centre of Runway
1210m x 60m
26
08
Gravel Pit
Flare Box
Windsock
Road
Road
Railway Track Centreline
ARTC Land
Road
Kitchener - YKCH
100 0 100 200
Metres
TN
MN 1.7°
Kitchener - YKCH
ALA Reference Point Co-ordinates
WGS84 Lat: S 31° 01.683'
WGS84 Long: E 124° 11.236'
Survey Date: 6/08/2001
ALA Elevation: 640 feet AMSL
Runway Gradient:
0° Runway 08/26
Magnetic Variation: 1.7° East
Runway Direction: 08/26 magnetic
Runway Length: 1210m
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP13

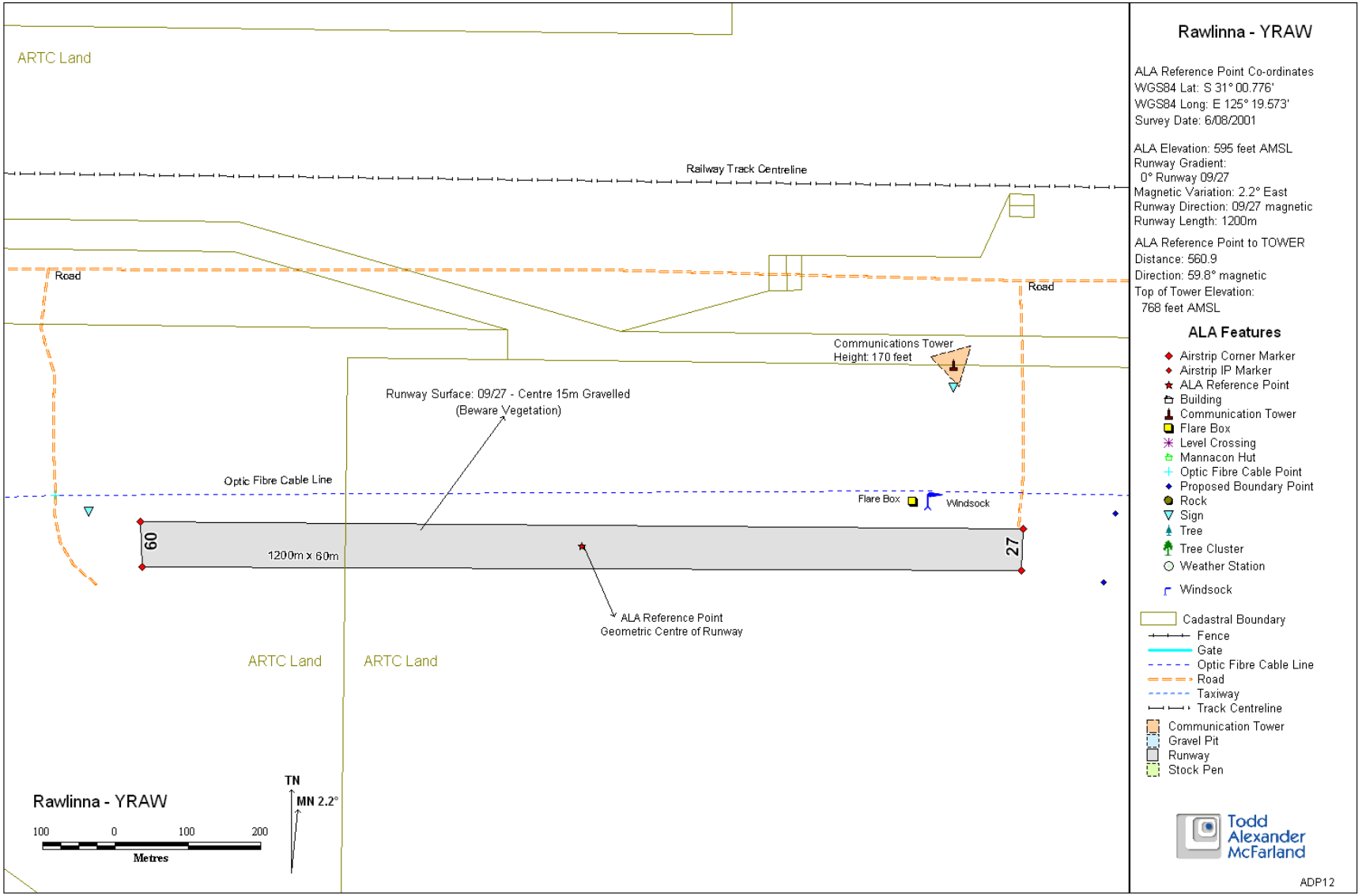

Zanthus - YZAN
ALA Reference Point Co-ordinates
WGS84 Lat: S 31° 02.181'
WGS84 Long: E 123° 34.037'
Survey Date: 5/08/2001
ALA Elevation: 882 feet AMSL
Runway Gradient:
0.1° Runway 27/09
Magnetic Variation: 1.4° East
Runway Direction: 09/27 magnetic
Runway Length: 1220m
ALA Reference Point to TOWER
Distance: 582.1m
Direction: 46.1° magnetic
Top of Tower Elevation:
1183 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Railway Track Centreline
ARTC Land
Communications Tower
Height: 300 feet
Road
Taxiway/Road
Runway Surface: 09/27 - Centre 20m Gravelled
(Beware Vegetation and Soft Edges)
60
1220m x 65m
27
Flare Box
Windsock
ALA Reference Point
Geometric Centre of Runway
ARTC Land
ARTC Land
CROWN Land
Zanthus - YZAN
TN
MN 1.4°
100 0 100 200
Metres
Todd Alexander McFarland
ADP14


Railway Track Centreline
ARTC Land
Road
Coonana Station Land
14
Windsock
Flare Box
Runway Surface: 14/32 - Centre 25m Gravelled
(Beware Vegetation and Soft Edges)
ALA Reference Point
Geometric Centre of Runway
1200m x 60m
Fence
Road
32
Gate
Coonana - YCNN
200 0 200 400
Metres
TN
MN 1.3°
Coonana - YCNN
ALA Reference Point Co-ordinates
WGS84 Lat: S 31° 01.713'
WGS84 Long: E 123° 09.413'
Survey Date: 5/08/2001
ALA Elevation: 1132 feet AMSL
Runway Gradient:
0.1° Runway 14/32
Magnetic Variation: 1.3° East
Runway Direction: 14/32 magnetic
Runway Length: 1200m
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP15


Karonie - YKRE
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 58.551'
WGS84 Long: E 122° 32.499'
Survey Date: 4/08/2001
ALA Elevation: 1151 feet AMSL
Runway Gradient:
0.4° Runway 15/33
Magnetic Variation: 1.0° East
Runway Direction: 15/33 magnetic
Runway Length: 1200m
Railway Track Centreline
Road
Fence
ARTC Land
Cowarna Downs Pty Ltd Land
15
33
Windsock
Flare Box
Runway Surface: 15/33 - Centre 20m Gravelled
(Beware Vegetation)
ALA Reference Point
Geometric Centre of Runway
1200m x 60m
TN
MN 1.0°
Karonie - YKRE
200 0 200 400
Metres
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP16


ARTC Land
AJ & PA MCBRIDE PTY LTD Land
Road
Railway Track Centreline
Communications Tower
Height: 235 feet
Telstra Tower
Height: 112 feet
Windsock
Flare Box
14
22
04
32
Runway Surface: 14/32, 04/22 - Centre 10m Gravelled Graded Earth (Caution Runway 32 first 400m very rough, Kangaroos, Dogs, Camels)
1190m x 80m
1590m x 60m
ALA Reference Point
Intersection Point of Runways
OUTBACK AREAS COMMUNITY DEVELOPMENT TRUST Land
ARTC Land
CROWN Land
AJ & PA MCBRIDE PTY LTD Land
CROWN Land
Kingoonya - YKGA
150 0 150 300
Metres
TN
MN 6.3°
Kingoonya - YKGA
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 54.861'
WGS84 Long: E 135° 18.431'
Survey Date: 9/08/2001
ALA Elevation: 490 feet AMSL
Runway Gradient:
0° 14/32, 0° 04/22
Magnetic Variation: 6.3° East
Runway Direction:14/32 magnetic
Runway Length: 1590m
Runway Direction: 04/22 magnetic
Runway Length: 1190m
ALA Reference Point to Com. TOWER
Distance: 1425.3m
Direction: 66.7° magnetic
Top of Tower Elevation:
721 feet AMSL
ALA Reference Point to Telstra TOWER
Distance: 860.7m
Direction: 66.8° magnetic
Top of Tower Elevation:
602 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP2


Cook - YOOK
Railway Track Centreline
Road
Road
ARTC Land
Communications Tower
Height: 300 feet
Windsock
Windsock
17
60
Flare Box
1460m x 90m
27
ALA Reference Point
Intersection Point of Runways
1360m x 90m
ARTC Land
Crown Land
35
Cook - YOOK
200 0 200 400
Metres
TN
MN 4.4°
Cook - YOOK
ALA Reference Point Co-ordinates
WGS84 Lat: S 30° 37.111'
WGS84 Long: E 130° 24.363'
Survey Date: 8/08/2001
ALA Elevation: 400 feet AMSL
Runway Gradient:
0° Runway 09/27
Magnetic Variation: 4.4° East
Runway Direction: 09/27 magnetic
Runway Length: 1460m
Runway Gradient:
0.1° Runway 17/35
Runway Direction:17/35 magnetic
Runway Length: 1360m
ALA Reference Point to TOWER
Distance: 428m
Direction: 42° magnetic
Top of Tower Elevation:
713 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP7


ARTC Land
Railway Track Centreline
Road
Road
Communications Tower
Height: 170 feet
Runway Surface: 09/27 - Centre 15m Gravelled
(Beware Vegetation)
Optic Fibre Cable Line
Flare Box
Windsock
60
27
1200m x 60m
ALA Reference Point
Geometric Centre of Runway
ARTC Land
ARTC Land
Rawlinna - YRAW
TN
MN 2.2°
100 0 100 200
Metres
Rawlinna - YRAW
ALA Reference Point Co-ordinates
WGS84 Lat: S 31° 00.776'
WGS84 Long: E 125° 19.573'
Survey Date: 6/08/2001
ALA Elevation: 595 feet AMSL
Runway Gradient:
0° Runway 09/27
Magnetic Variation: 2.2° East
Runway Direction: 09/27 magnetic
Runway Length: 1200m
ALA Reference Point to TOWER
Distance: 560.9
Direction: 59.8° magnetic
Top of Tower Elevation:
768 feet AMSL
ALA Features
Airstrip Corner Marker
Airstrip IP Marker
ALA Reference Point
Building
Communication Tower
Flare Box
Level Crossing
Mannacon Hut
Optic Fibre Cable Point
Proposed Boundary Point
Rock
Sign
Tree
Tree Cluster
Weather Station
Windsock
Cadastral Boundary
Fence
Gate
Optic Fibre Cable Line
Road
Taxiway
Track Centreline
Communication Tower
Gravel Pit
Runway
Stock Pen
Todd Alexander McFarland
ADP12