

UAIT AD 2

Note: The following sections in this chapter are intentionally left blank: AD-2.10, AD-2.16, AD-2.21

UAIT AD 2.1 Aerodrome Location Indicator And Name

UAIT - TURKISTAN

UAIT AD 2.2 Aerodrome Geographical And Administrative Data

1	ARP coordinates and site at AD	431840N 0683301E
2	Direction and distance from (city)	86°, 16 NM from Turkistan center
3	Elevation/Reference temperature	989 FT/34.4° C
4	Geoid undulation at AD ELEV PSN	-135 FT
5	MAG VAR/Annual Change	6° (2019)/0.06°
6	AD Administration, address, telephone, telefax, telex, e-mail address, AFS, website address	Post: Authority of Airport Turkistan region, Sauran district, Shaga rural district, Shaga village, block 070, building 284. 160000 Turkistan, JSC "Turkistan International Airport" Republic of Kazakhstan Phone: +7 (7253) 352900 Phone: +7 (702) 0470769 AFS: UAITZXRA AFS: UAITZYRA Email: office@hsairport.kz Email: pdsp@hsairport.kz
7	Types of traffic permitted (IFR/VFR)	IFR-VFR
8	Remarks	Nil

UAIT AD 2.3 Operational Hours

1	AD Operator	H24 Phone: +7 (7253) 352900
2	Customs and immigration	By prior request
3	Health and sanitation	H24 Phone: +7 (7252) 352903
4	AIS Briefing Office	H24
5	ATS Reporting Office (ARO)	H24 Phone: +7 (7252) 610537
6	MET Briefing Office	H24 Phone: +7 (7252) 610539
7	ATS	H24 Phone: +7 (7252) 610538
8	Fuelling	H24 Phone: +7 (7253) 352900
9	Handling	H24 Phone: +7 (72533) 52900
10	Security	H24

11	De-icing	H24 Phone: +7 (7253) 352900
12	Remarks	Nil

UAIT AD 2.4 Handling Services And Facilities

1	Cargo-handling facilities	Trepel Champ 350 loader-load capacity up to 35 tons; Trepel Champ 70U loader-load capacity up to 7 tons; Forklift truck-Doosan 10t - load capacity up to 10 tons; Forklift truck-Doosan 5t - load capacity up to 5 tons; Tape loader – TLD NBL - load capacity up to 250 kg (2 units.); Pallet truck – Timsan PD20000 – load capacity up to 20t (1ed.); Pallet truck – Timsan PD7000 – load capacity up to 7T (1ed.); Truck container – Timsan CD1800 – load capacity up to 1.8 tonnes (2 units.); Truck Luggage – Timsan BT2000 – load capacity up to 2T (6 units)
2	Fuel/oil types	TS-1, TS-1 RT / Oil: Nil
3	Fuelling facilities/capacity	2 tankers 20 cub. meters, 1200 l / min Mercedes Benz Actros by Mates 20M3 1 tanker 40 cub. meters, 2400 l / min MAN TGM by Mates MTT-2023- 272
4	De-icing facilities	Anti-icing liquid treatment machine (Type 1 Sky Go EG, Type 4 4Flite EG) Timsan MDI12000 with a maximum service height of up to 12 - 1 unit.
5	Hangar space for visiting aircraft	Nil
6	Repair facilities for visiting aircraft	Nil
7	Remarks	Nil

UAIT AD 2.5 Passenger Facilities

1	Hotels	In the city Turkistan
2	Restaurants	AVBL
3	Transportation	Taxis
4	Medical facilities	Aid post at Airport Terminal, ambulance service, hospitals in Turkistan
5	Bank and Post Office	In the city Turkistan
6	Tourist Office	In the city Turkistan
7	Remarks	Nil

UAIT AD 2.6 Rescue And Fire Fighting Services

1	AD category for fire fighting	CAT A7
2	Rescue equipment	4 fire trucks with a total volume of extinguishing agents – 38 200 kg., including foaming agent - 2 900 kg., total capacity - 280 kg/s

3	Capability for removal of disabled aircraft	There are possibilities of evacuation of aircraft with an empty equipped aircraft weight of up to 40 tons, types A-320, B-737. The equipment is available around the clock Phone: +7 (7253) 352900 Phone: +7 702 0470769 Email: ramp@hsairport.kz
4	Remarks	The possibility of increasing the required level of fire protection up to 8 categories on request.

UAIT AD 2.7 Seasonal Availability - Clearing

1	Types of clearing equipment	3 plow-brush equipment with turbo-blowing, 1 screw-rotor, 1 trailed reagent sprayer, 1 tractor with attachments, Other modern snow removal equipment
2	Clearance priorities	1. RWY 2. TWY 3. Stands
3	Remarks	(Seasonal availability: All seasons, caution advised in winter during snow conditions) U-turns on the RWY 05/23 for the aircraft code letter D and higher are allowed only at the ends of the RWY.

UAIT AD 2.8 Aprons, Taxiways And Check Locations/Positions Data

1	Apron surface and strength	STANDS		SURFACE	STRENGTH
		1, 2		CONC	PCN 60/R/A/W/T
		3-7, 3A, 4A, 8, 8A		CONC+ASPH	PCN 80/F/C/W/T
2	Taxiway width, surface and strength	TWY	WIDTH (M)	SURFACE	STRENGTH
		A	23	CONC+ASPH	PCN 80/F/C/W/T
		B	23	CONC+ASPH	PCN 80/F/C/W/T
3	Altimeter checkpoint location and elevation	Nil			
4	VOR checkpoints	Nil			
5	INS checkpoints	Nil			
6	Remarks	At the end sections of the RWY there are widenings for turning the aircraft. Width 95m. The surface is concrete. PCN 60 R/A/W/T.			

UAIT AD 2.9 Surface Movement Guidance And Control System And Markings

1	Use of aircraft stand ID signs, TWY guide lines and visual docking/parking guidance system of aircraft stands	Guidance sign board at entrance of RWYs, guidance sign designating taxiways, apron
2	RWY and TWY markings and LGT	Markings of thresholds, touchdown zones, centre line, fixed distance markers, RWY edges, RWY designations, undershoot area
3	Stop bars	Nil
4	Other runway protection measures	Nil
5	Remarks	RWY 05/23 turning bay blue lights has low intensity at nighttime and in low visibility conditions.

UAIT AD 2.10 Aerodrome Obstacles

NIL

UAIT AD 2.11 Meteorological Information Provided

1	Associated MET Office	Meteorological service Turkistan
2	Hours of service MET Office outside hour	H24
3	Office responsible for TAF preparation: Periods of validity	Meteorological service Turkistan, 24HR (0024, 0606, 1212, 1818)
4	Trend forecast Interval of issuance	TREND 30 min
5	Briefing/consultation provided	Personal consultation (Russian)
6	Flight documentation/languages used	TAF, METAR, SPECI, SIGMET, GAMET, AIRMET English
7	Charts and other information AVBL for briefing or consultation	S, U85, U70, U50, U40, U30, U25, U20, prognostic charts of wind and temperature at flight levels (FL), max wind, T, prognostic charts P85, P70, P50, P40, P30, P25, P20, SWH, SWM of WAFC, SWM+SWH, SWL of Kazakhstan;
8	Supplementary equipment AVBL for providing information	Nil
9	ATS units provided with information	Briefing, TWR
10	Additional information	Nil

UAIT AD 2.12 Runway Physical Characteristics

Designation s RWY NR	TRUE BRG	Dimension s of RWY (M)	Strength (PCN) and surface of RWY and SWY	THR coordinates RWY end coordinates THR geoid undulation	THR elevation and highest elevation of TDZ of precision APP RWY	Slope of RWY-SWY
1	2	3	4	5	6	7
05	55,68°	3300 X 45	80/F/C/W/T CONC+ASPH	431810.00N 0683200.99E - -135.1 FT	THR 912.7 FT	0.7%
23	235.70°	3300 X 45	80/F/C/W/T CONC+ASPH	431910.27N 0683401.98E - 134.5 FT	THR 988.5 FT	0.7%

SWY dimensions (M)	CWY dimension s (M)	Strip dimensions (M)	RESA dimensions (M)	Location and description of arresting system	OFZ	Remarks
8	9	10	11	12	13	14
Nil	200 X 160	3600 X 300	240 X 150	Nil	Nil	The RWY turn pad length is 200 m, the total width of the RWY turn pad is 95 m. Refer to AIP section 2.24.1
Nil	300 X 160	3600 X 300	240 X 150	Nil	Nil	The RWY turn pad length is 200 m, the total width of the RWY turn pad is 95 m. Refer to AIP section 2.24.1

UAIT AD 2.13 Declared Distances

RWY Designator	TORA (M)	TODA (M)	ASDA (M)	LDA (M)	Remarks
1	2	3	4	5	6
05	3300	3500	3300	3300	Nil
23	3300	3600	3300	3300	Nil
TWY A - 05	1650	1850	1650	Nil	Nil
TWY B - 05	1086	1286	1086	Nil	Nil
TWY A - 23	1650	1950	1650	Nil	Nil
TWY B - 23	2214	2514	2214	Nil	Nil

UAIT AD 2.14 Approach And Runway Lighting

RWY Designator	APCH LGT type, LEN, INTST	THR LGT colour, WBAR	VASIS, (MEHT), PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	2	3	4	5	6	7	8	9	10
05	CAT I (FALS) 900 M LIH	GRN Nil	PAPI LEFT/3°	Nil	Nil	3300, spacing 60m, 0-2700 white, last 600m yellow	RED Nil	Nil	Nil

RWY Designator	APCH LGT type, LEN, INTST	THR LGT colour, WBAR	VASIS, (MEHT), PAPI	TDZ, LGT LEN	RWY Centre Line LGT Length, spacing, colour, INTST	RWY edge LGT LEN, spacing, colour, INTST	RWY End LGT colour, WBAR	SWY LGT LEN, colour	Remarks
1	2	3	4	5	6	7	8	9	10
23	CAT I (FALS) 900 M LIH	GRN Nil	PAPI LEFT/3°	Nil	Nil	3300, spacing 60m, 0-2700 white, last 600m yellow	RED Nil	Nil	Nil

UAIT AD 2.15 Other Lighting, Secondary Power Supply

1	ABN/IBN location, characteristics and hours of operation	
2	LDI location and LGT Anemometer location and LGT	LDI: 117m from centerline of the RWY, 492.4m from THR 23 Anemometer: Nil
3	TWY edge and centre line lighting	TWY A EDGE: BLU TWY B EDGE: BLU
4	Secondary power supply/switch-over time	AVBL, 0 SEC
5	Remarks	Nil

UAIT AD 2.16 Helicopter Landing Area

NIL

UAIT AD 2.17 ATS Airspace

1	Designation and lateral limits	TURKISTAN CTR 433342N 0684843E - 431734N 0690339E - 425724N 0682312E - 431121N 0680459E - 432101N 0680856E - 433342N 0684843E
2	Vertical limits	6000 FT ALT / GND
3	Airspace classification	C
4	ATS unit call sign Language(s)	TURKISTAN TOWER EN TURKISTAN VYSHKA RU
5	Transition altitude	10000 FT
6	Hours of applicability	H24
7	Remarks	Nil

UAIT AD 2.18 ATS Communication Facilities

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
TWR	TURKISTAN TOWER (EN) TURKISTAN VYSHKA (RU)	131,3 MHZ	Nil	Nil	H24	Nil

Service designation	Call sign	Frequency	SATVOICE number(s)	Logon address	Hours of operation	Remarks
1	2	3	4	5	6	7
Production and dispatcher service	TURKISTAN TRANZIT (EN) TURKISTAN TRANZIT (RU)	121.35 MHZ	Nil	Nil	H24	Nil
ATIS	TURKISTAN ATIS (EN) TURKISTAN ATIS (RU)	124,4 MHZ 118,3 MHZ	Nil	Nil	H24	Nil

UAIT AD 2.19 Radio Navigation And Landing Aids

Type of aid, MAG VAR, ILS Classification, Type of supported OP (for VOR/ILS/MLS, give declination)	ID	Frequency, Channel number	Hours of operation	Position of transmitting antenna coordinates	Elevation of DME transmitting antenna	Service volume radius from the GBAS reference point	Remarks
1	2	3	4	5	6	7	8
ILS LOC 05 I/D/2	ITR	110.7 MHZ	H24	431924.6N 0683430.8E	1000 FT	Nil	Nil
GP 05 I/C/2		330.2 MHZ		431811.7N 0683214.3E			
DME 05	ITR	CH 44X		431811.7N 0683214.3E			
ILS LOC 23 I/D/2	ITK	111.3 MHZ	H24	431800.6N 0683142.1E	1000 FT	Nil	Nil
GP 23 I/C/2		332.3 MHZ		431900.6N 0683352.3E			
DME 23	ITK	CH 50X		431900.6N 0683352.3E			
DVOR/DME (6°E/2019)	TRK	114,6 MHZ CH 93X	H24	431932.3N 0683446.1E	1000 FT	Nil	Nil

UAIT AD 2.20 Local Traffic Regulations**1. Airport regulations**

Movement of aircraft about the aerodrome shall be carried out under its power or by towing with special vehicles. Taxiing and towing shall be carried out strictly along taxi center lines. Distributing of stands shall be carried out by dispatcher service according to apron load and availability of vacant stands, involved in maintenance. The speed of taxiing shall be chosen by a pilot-in-command depending on the condition of taxiways and apron, presence of obstacles, aircraft weight, and horizontal visibility conditions. The speed of taxiing in all cases must not exceed the speed established by the Flight Crew Operational Manual. ATS air traffic controller is responsible for the taxiway route assignment, the pilot-in-command is responsible for the observance of taxiing rules and a person, guiding the taxiing on the segment assigned to him, is responsible for the safety of taxiing. Taxiing of ACFT with index 4 and 5 into RWY from TWY A and TWY B and out of RWY to TWY shall be carried out at reduced speed with the flight crew's increased caution and with the observance of safety interval between the landing gear and edges. For De-icing on stand 8, 8A for aircraft with code designations D and higher, strictly under the accompaniment of aircraft technicians, taxiing from the TWY A side.

2. Taxiing/towing precautions with taking into account visibility conditions, surface condition of runway, apron, stands and taxiways.

Flight crew shall be notified about the surface condition of runway, apron, stands and taxiways by "Tower" air traffic controller according to work technique.

Taxiing onto the apron after runway vacation shall be carried out only after "Follow me" car.

Aircraft parking shall be carried out by the signals of marshaller.
Escorting by special vehicle from stands to holding position and from taxiways to stands shall be carried out when markings on the maneuvering area are invisible due to snow.

3. Taxiing into stands under own engines power and by towing.

Taxiing into stands 3-4 shall be carried out under own engines power.

Taxiing into stands 8, 8A shall be carried out by towing under the accompaniment of aircraft technicians with code designations D and higher

4. Taxiing out of stands under own engines power and by towing.

Taxiing out of stands 1, 2, 5, 6, 7, 3A, 4A, 8A shall be carried out by towing.

5. Parking area for small aircraft (General aviation)

Parking on stand 3-4 shall be carried out by the signals of marshaller

6. De-icing areas, sanitary area, engine start-up areas.

For De-icing on stand 8, 8A for aircraft with code designations D and higher, strictly under the accompaniment of aircraft technicians, taxiing from the TWY A side.

7. The movement procedure of aircraft and vehicles in critical and sensitive zones of ILS during aerodrome operation on the minima I ICAO category.

The boundary of the critical area of the radio beacon system has daytime and nighttime markings on the TWY A. "Stop" and "ILS critical area" signs are set on the intersection of the airport roads and the critical area of the radio beacon system.

The intersection of critical zones of radio beacon landing system with aircraft, vehicles and other mobile facilities shall be carried out with the clearance of the "Tower" controller. The intersection of these areas with mentioned facilities during landing approach till landing is prohibited.

8. Restrictions in the operation of large aircraft including restrictions on the use of its own power for taxiing.

Aerodrome can be operated by aircraft with PCN/ACN ratio above or equal to 1. Weight and traffic intensity restriction of aircraft with non-equal PCN and ACN values are applied (Operation of aircraft of the MD-11 and B747-8F types with full weight with the intensity limitation to 20 (aircraft departures per day)).

9. Taxiing of aircraft in the absence of visibility of marking lines on the maneuvering area.

Runway, apron, stands and taxiways are not equipped with centerline lights

In case of invisibility of taxiway due to packed snow aircraft escorting shall be carried out only after the "Follow-me" car equipped with a UHF communication with a two-way radio "ground-to-air" and "ground-ground" communication, flashing lights and the "Follow-me" panel and can be requested by the flight crew or by the shift deputy head of production and dispatcher service.

10. Disabled aircraft removal procedures.

It is possible to evacuate aircraft with an empty weight of loaded aircraft up to 40 tons, types A320, B-737.

11. Low Visibility Procedures.

Low Visibility Procedures (LVP) are effected when RVR is less than 550 m when manoeuvring area or part thereof is not visually monitored from the "Tower" control centre.

Low Visibility Procedures are initiated by the Air traffic Manager of Control Centre. The status of LVP is passed to pilots by ATIS broadcast or by ATC.

Before the introduction of the procedures of limited visibility, the air traffic controller of "Tower" Control centre (Tower ATC) begins to keep a record of vehicles and persons who are currently on the manoeuvring area, and continues to this account during the period of these procedures to promote security activities in this area and restricts the movement of vehicles airport services on the apron and manoeuvring area, writes the data in the logbook.

Tower ATC, received information about the beginning of the (termination) procedures in low visibility conditions to inform

adjacent control towers. The operation of LVP shall be reported by Tower ATC phrase: "LOW VISIBILITY PROCEDURES IN OPERATION".

Tower ATC restricts the movement of vehicles airport services on the apron and manoeuvring area during LVP procedures, produces control over the presence of obstacles on the runway and in the ILS critical area, on the reports of aircraft crew or reports of aerodrome service specialist, informs the flight crew about changes in the operational status of radio and lighting equipment.

Taxiing of departing aircraft shall be carried out after a follow-me car from stands to holding position. Taxiing to stand (apron) after RWY vacation shall be carried out after a follow-me car.

Upon receiving information that an aircraft or vehicle is lost or uncertain of its position on the manoeuvring area, Tower ATC takes action to ensure safety and to assist the aircraft or vehicle to determine its position.

If the Tower ATC cannot visually determine the aircraft RWY vacation, it requires the crew to report the vacation of the RWY.

12. Measurement of the friction coefficient of the runway pavement surface

Carried out using continuous friction measuring equipment Skiddometer BV 11.

UAIT AD 2.21 Noise Abatement Procedures

NIL

UAIT AD 2.22 Flight Procedures

1. VFR procedures within the aerodrome control zone (CTR)

Air traffic service in the control zone of the aerodrome is carried out by the controller of the "Tower" ATC unit. Flight altitudes are calculated by the aircraft crew in accordance with the Civil Aviation Flight Rules of the Republic of Kazakhstan. The functions of Air traffic service does not include ground collision avoidance. The aircraft crew shall ensure that the clearance issued by the ATS unit in this regard is safe. VFR flights at altitudes below 2000 feet in the control zone are performed at the altitudes indicated in the flight plan or requested by the aircraft crew.

Flights must not be performed over populated areas within the control zone.

For VFR flights, the aerodrome has a flight circle (left / right) at an altitude of 2000 feet. The air traffic controller of the "Tower" ATC unit is determine and report which flight circle is in use.

Entering the flight circle, crossing the runway alignment is made only with the permission of the air traffic controller of the "Tower" ATC unit.

The aircraft crew preliminarily agrees with the ATS unit the flight area and altitude range during aerial work in the control zone at absolute altitudes.

When entering the control zone (CTR) from uncontrolled airspace, the aircraft crew must obtain an air traffic control clearance 5 minutes before the estimated time of entering the controlled airspace.

Entry / exit of aircraft of category A and helicopters flying in VFR to / from the control zone (CTR) is carried out at the shortest distance through the corresponding point.

If the air situation requires the holding procedure, the air traffic controller of the "Tower" ATC unit gives the instructions to the aircraft crew to follow to one of the holding points.

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
1	KILO (SE outskirts of Kosmezgil)	N432135 E0680637	270° 20.6 nm TRK DVOR/DME	Entry/exit
2	DELTA (southern outskirts of Kentau)	N432920 E0683248	346° 9.9 nm TRK DVOR/DME	Entry/exit

№	Waypoint name (visual reference)	Geographical coordinates	Radial (mag.) and distance from NAVAID (ARP)	Remarks
3	PAPA (SE outskirts of Kaynarbulak)	N431806 E0690402	088° 21.4 nm TRK DVOR/DME	Entry/exit
4	CHARLIE (Eastern coast of Sinakkol lake)	N430312 E0683445	174° 16.3 nm TRK DVOR/DME	Entry/exit
5	ALPHA (northern outskirts of Koshkorgan)	N432351 E0683011	316° 5.5 nm TRK DVOR/DME	Holding
6	BRAVO (southern outskirts of Ibata)	N431519 E0683808	144° 4.9 nm TRK DVOR/DME	Holding

UAIT AD 2.23 Additional Information

1. Accepted exceptions, exemptions and restrictions in aerodrome certificate.

Regulatory reference	Requirement of regulations	Description of exceptions, exemptions and restrictions	Measures taken and validity period
Nil	Nil	Nil	Nil

2. Ornithological situation

In the Turkistan region have been registered 377 bird species.

During the warm season, the highest concentration of birds is observed near the Shoshkakul lakes, Koksaray, Bugun and Shardarinsky reservoirs, the Bugun river, Syr Darya, Arys, Badam, and aerodrome areas, where they make random flights up to an altitude of 600-1000 meters.

Spring migration of birds occurs from late February to March, and autumn migration from September to November. The main direction of migrating birds passes through Shardarinsky reservoir, a group of Shushkakul lakes, through Karatau to the North of the region, crossing sections of the route, which sharply increases the risk of collision with birds at altitudes up to 3000 meters.

The main directions of bird's migration in the spring from south to north. In autumn, from north to south.

UAIT AD 2.24 Charts Related To An Aerodrome

Name	Page
Aerodrome Chart ICAO	UAIT AD 2.24.1-1
Aerodrome Ground Movement and Parking Chart ICAO	UAIT AD 2.24.3-1
Aerodrome Obstacle Chart – ICAO – Type A	UAIT AD 2.24.4-1
Area Chart ICAO	UAIT AD 2.24.6-1
Standard Departure Chart Instrument (SID) RWY 05 ICAO	UAIT AD 2.24.7-1-1
Standard Departure Chart Instrument (SID) RWY 23 ICAO	UAIT AD 2.24.7-2-1
Standard Arrival Chart Instrument (STAR) RWY 05 ICAO	UAIT AD 2.24.9-1-1
Standard Arrival Chart Instrument (STAR) RWY 23 ICAO	UAIT AD 2.24.9-2-1
ATC Surveillance Minimum Altitude Chart ICAO	UAIT AD 2.24.10-1
Instrument Approach Chart – ILS/DME Y RWY 05 ICAO	UAIT AD 2.24.11-1-1
Instrument Approach Chart – ILS/DME Z RWY 05 ICAO	UAIT AD 2.24.11-2-1
Instrument Approach Chart – ILS/DME Y RWY 23 ICAO	UAIT AD 2.24.11-3-1
Instrument Approach Chart – ILS/DME Z RWY 23 ICAO	UAIT AD 2.24.11-4-1
Instrument Approach Chart – VOR/DME Y RWY 05 ICAO	UAIT AD 2.24.11-5-1
Instrument Approach Chart – VOR/DME Z RWY 05 ICAO	UAIT AD 2.24.11-6-1
Instrument Approach Chart – VOR/DME Y RWY 23 ICAO	UAIT AD 2.24.11-7-1
Instrument Approach Chart – VOR/DME Z RWY 23 ICAO	UAIT AD 2.24.11-8-1
Instrument Approach Chart – LOC/DME Y RWY 05 ICAO	UAIT AD 2.24.11-9-1
Instrument Approach Chart – LOC/DME Z RWY 05 ICAO	UAIT AD 2.24.11-10-1
Instrument Approach Chart – LOC/DME Y RWY 23 ICAO	UAIT AD 2.24.11-11-1
Instrument Approach Chart – LOC/DME Z RWY 23 ICAO	UAIT AD 2.24.11-12-1
Visual Approach chart – ICAO	UAIT AD 2.24.12-1
VFR Departure/Arrival Chart	UAIT AD 2.24.14-1

UAIT AD 2.25 Visual segment surface (VSS) penetrations

No penetrations

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