RWI-HC-003-P2 — DECODEDELTA1: Al-Watiya, the whole of December 2015

Hindcast, part 2. Window 1–31 December 2015, around the reported landing of a US special-operations team at Al-Watiya (al-Wattiyah) air base on **14 December 2015**. Completes RWI-HC-003, which said the 2015 event could not be imaged — written before these pulls. Sources: every Landsat 7/8, Sentinel-2 and Sentinel-1 pass over the base in the month; NASA FIRMS (VIIRS S-NPP archive, 90 km box, key agent Gazda); NASA Black Marble night lights (VNP46A2); ERA5 weather; Sentinel-1 radar change around the whole perimeter. Times UTC (Libya = UTC+2). LLM-assisted analysis.

REPORTER LEADS — things in our data that no public reporting explains yet. Leads, not findings: each needs a reporter to confirm or kill it.

No unexplained leads in this window.

1. Bottom line

1.1 **Nothing in the open satellite record marks the landing.** No pass of any satellite fell on 14 December. The nearest looks either side — radar on 13 and 25 December from the same orbit, optical on 9 and 25 December — show no new structures, scarring, vehicles or aircraft visible at 10–30 m, no fire within 30 km all month, and a dark base at night throughout, including the night of the 14th. That is what a short visit by one small aircraft (a C-146A per The Aviationist) and a team that left within hours would look like from orbit.
NOTHING TO MATCH

1.2 **The month now has imagery.** HC-003 said no processed Sentinel-2 existed for December 2015. The full pull found a clear **Sentinel-2 pass on 25 December** (0.4% cloud) — the first clean 10 m picture of the base after the landing — and clear Sentinel-2 on **25 November** to compare it with. Landsat 7 adds 2 and 9 December (with its stripe gaps); Landsat 8 10 December is cloud over the base; Sentinel-2 18 and 28 December miss the base (granule edge).

1.3 **Radar spanning the 14th is quiet.** Across 12 → 24 December only about 140 pixels changed inside the base fence — the same as the control pair before it (30 Nov → 12 Dec, about 170). The large November swings (the whole base brighter, then darker) are rain and drying, not activity. One spot brightened 13 → 25 Dec (32.4815 N, 11.8739 E, a road loop at the west end of the runway), but a structure is already visible there on 2 December — a fixed object returning differently, not something new.

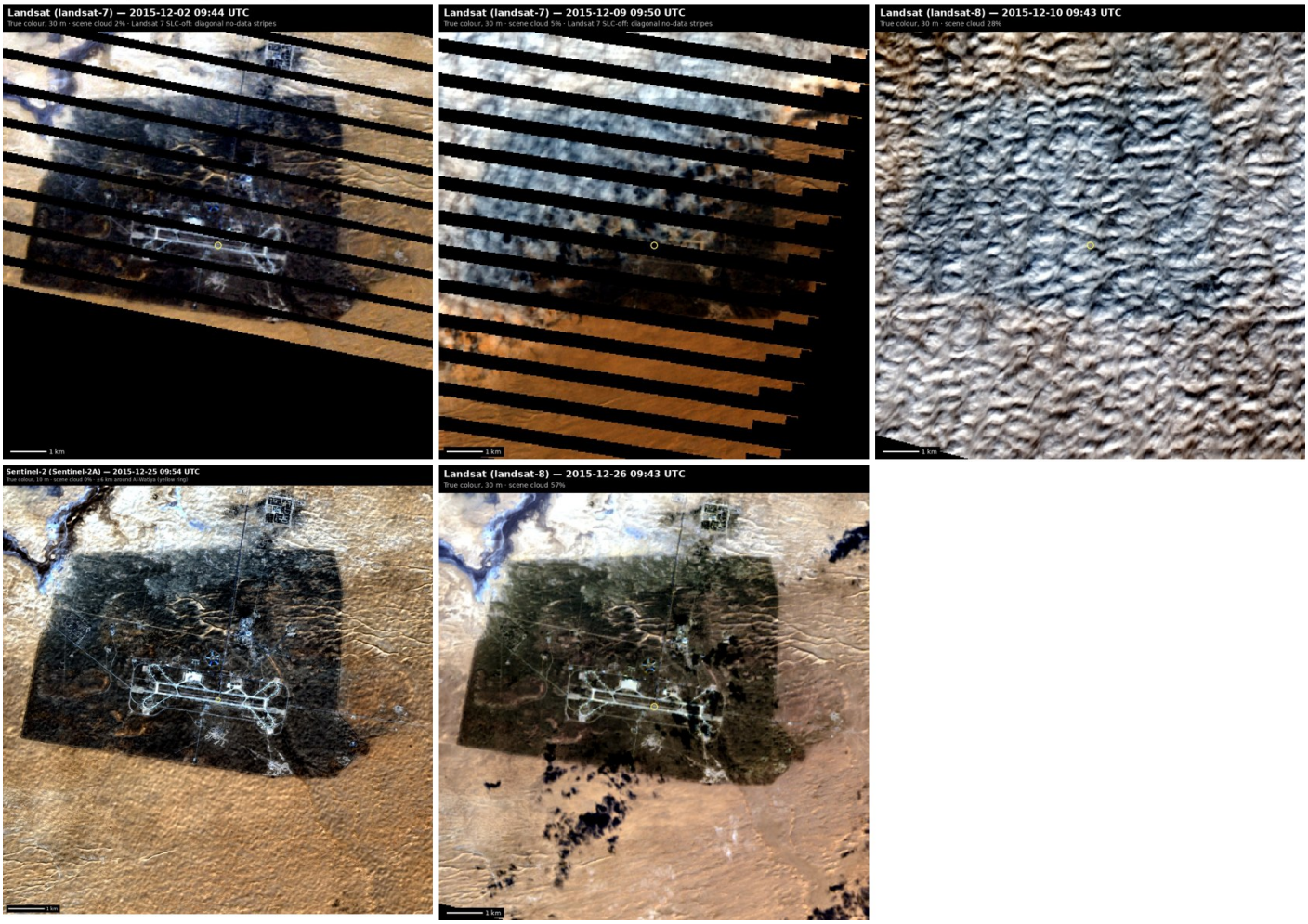
1.4 **The landing was made in the dark.** Sunrise at the base on 14 Dec was **08:05 Libya time** (06:05 UTC; Libya = UTC+2). The Libyan Air Force's 06:00 landing time is two hours before sunrise (sun 26° below the horizon); Zintan's 07:30 is still before dawn. That fits the night-vision devices listed in the Libyan Air Force post. ERA5 at the base: clear sky (0% cloud) 04:00–08:00 UTC, wind south-south-west about 12 km/h, gusts 17 km/h, 6 °C. Rain and stronger wind followed on 15–17 December. Revision 2 corrects revision 1, which gave the sunrise as 06:05 local and called it a dawn landing.

1.5 **The Libyan Air Force photos fit our imagery but cannot be pinned to a building.** All three were taken in full sunlight — so at least two and a half hours after the reported 06:00 landing. In Photo 2 the C-146A is facing west to south-west, consistent with the east–west runway and the western taxiways; Photos 1 and 3 show features (a hardstand, a single-storey building with a water tank and eucalyptus, a line of pylons on the horizon) too small to place at 10 m (section 5).

2. Every pass in the month

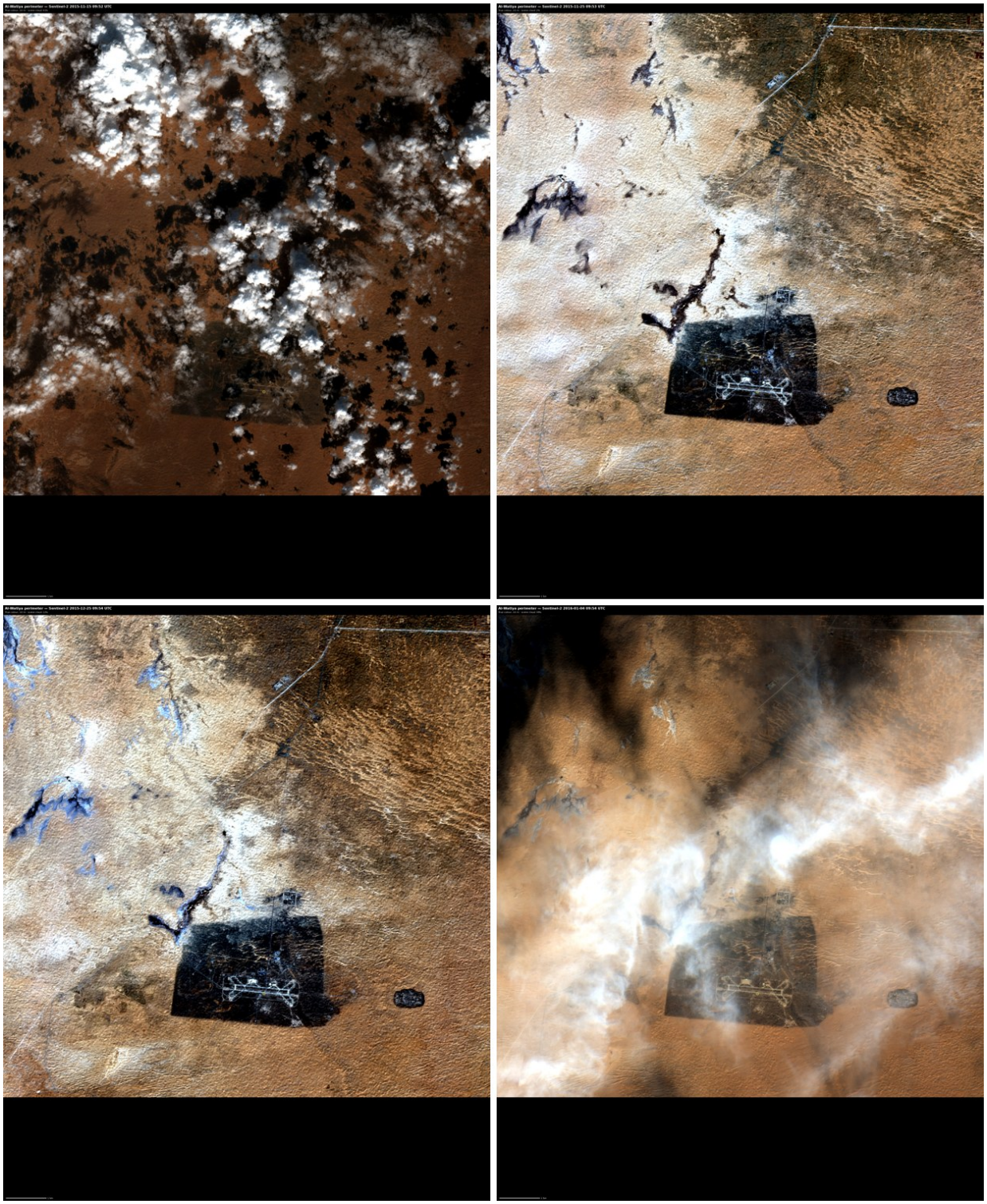
Date (UTC)	Sensor	Over the base	What it shows
1 Dec 05:14	Sentinel-1 radar (desc. orbit 22)	yes	Baseline for the same-orbit series (M2)
2 Dec 09:44	Landsat 7 (30 m, stripe gaps)	clear (2%)	Base and runway between gaps; structure at the west road loop visible (M3)
9 Dec 09:50	Landsat 7	cloud and stripes over the base	Little usable
10 Dec 09:43	Landsat 8	cloud over the base	Nothing usable
12 Dec 17:11	Sentinel-1 (asc. orbit 15)	yes	Start of the pair spanning the landing (M4)
13 Dec 05:14	Sentinel-1 (desc. orbit 22)	partial (north cut)	Last look before the landing
14 Dec	—	**no pass**	Reported landing ~06:00 (Libyan Air Force) / 07:30 (Zintan) local, both before sunrise (08:05)
18 Dec 09:44/10:04	Landsat 7; Sentinel-2	Landsat cloud 26–42%; S-2 misses the base	Little usable
24 Dec 17:11	Sentinel-1 (asc.)	yes	End of the spanning pair: quiet (M4)
25 Dec 05:14	Sentinel-1 (desc.)	yes	Same-orbit look 11 days after (M2)
25 Dec 09:54	**Sentinel-2 (10 m)**	**clear (0.4%)**	**Best picture of the month** (M1, M5)
25–26 Dec	Landsat 7; Landsat 8	cloud 42–57%	Partial
28 Dec 10:04	Sentinel-2	misses the base	—

M1 · Al-Watiya, every optical pass in December 2015 (2, 9, 10 | 25, 26 Dec). None on the 14th.



M1 · Every optical pass over Al-Watiya in December 2015: 2, 9, 10 Dec (before) and 25, 26 Dec (after). None on the 14th.

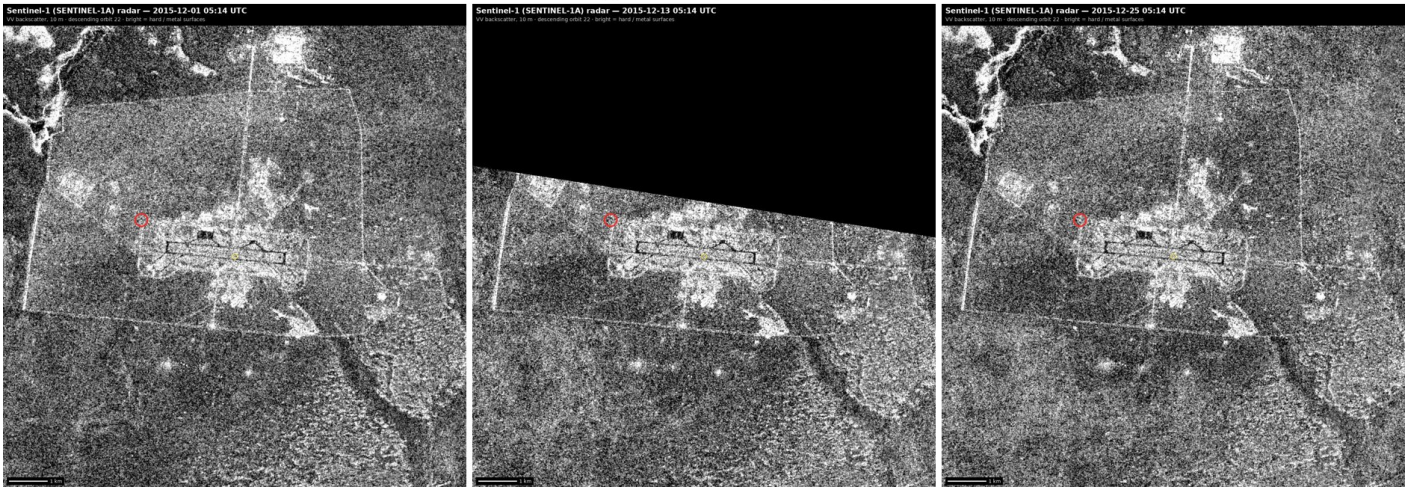
M5 · Sentinel-2, whole perimeter: 15 Nov, 25 Nov 2015 (before) | 25 Dec 2015, 4 Jan 2016 (after)



M5 · Sentinel-2 over the whole perimeter: 15 and 25 Nov 2015 (before) against 25 Dec 2015 and 4 Jan 2016 (after). 25 Nov and 25 Dec are both clear: no new structures, scarring or aircraft visible at 10 m.

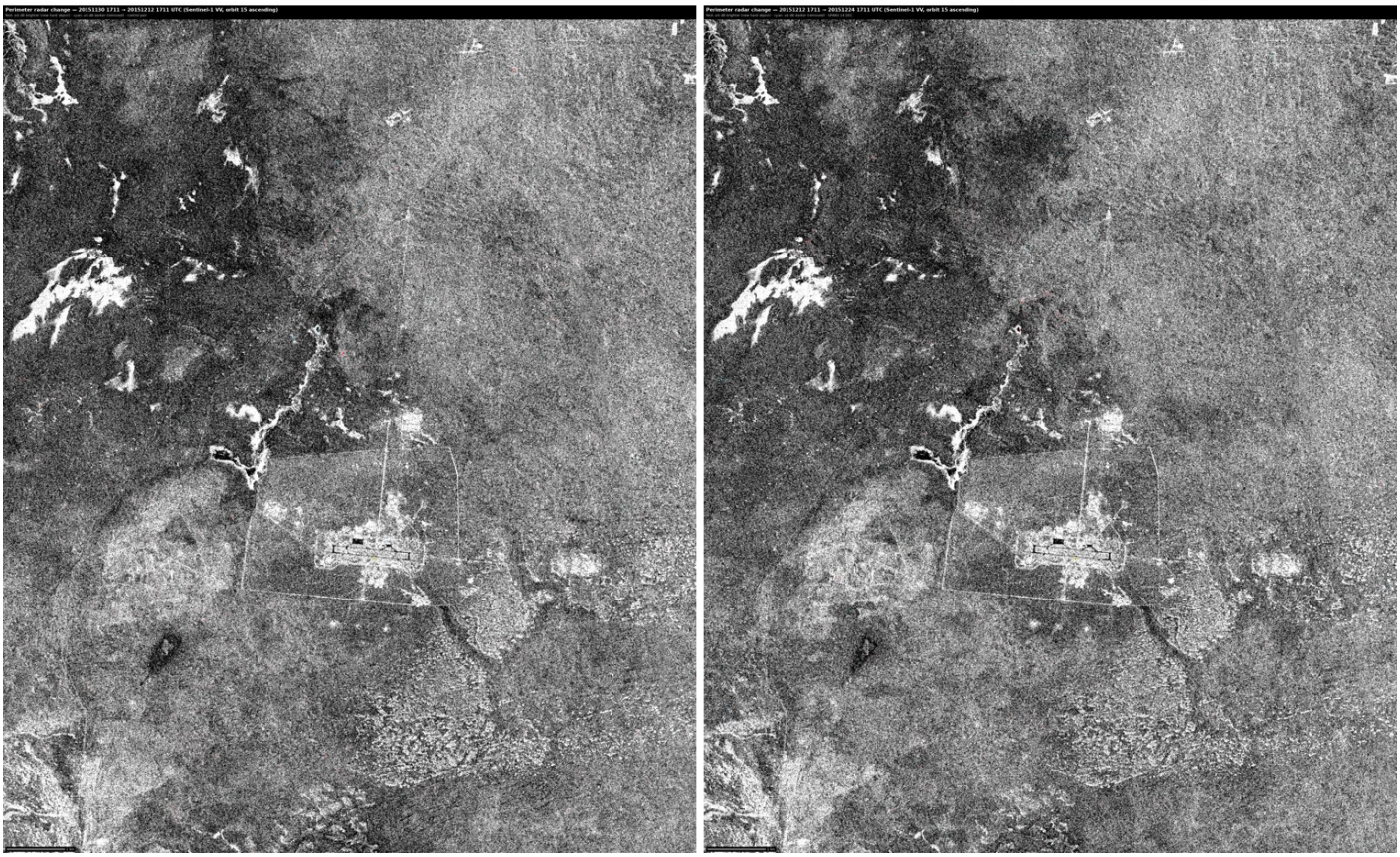
3. Radar: the same orbit either side of the landing

M2 · Sentinel-1 radar, same orbit, 1 → 13 → 25 Dec 2015. Red ring: the one spot that brightened 13 → 25 Dec (see M3).



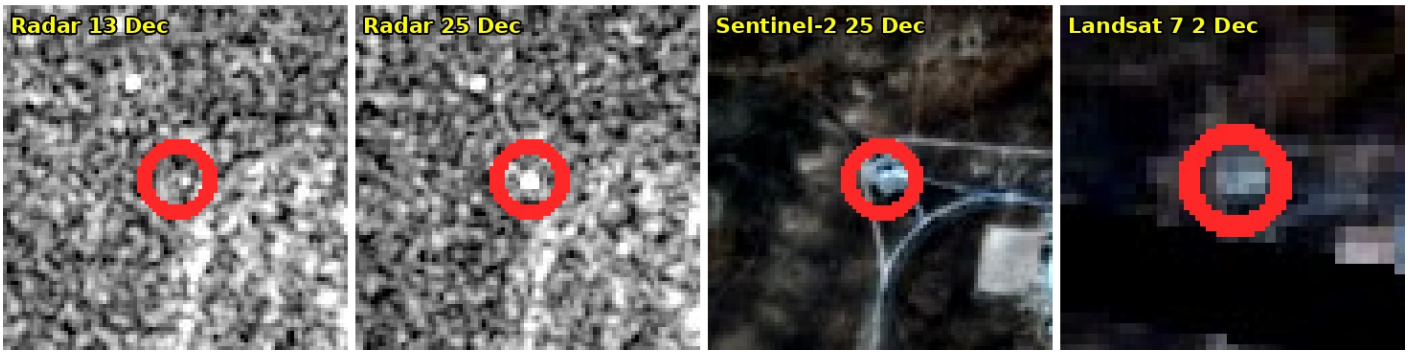
M2 · Sentinel-1 VV, descending orbit 22, 1 → 13 → 25 Dec. The base, runway and aprons are unchanged at 10 m.

M4 · Radar change over the base: control 30 Nov → 12 Dec (left) vs. spanning the landing 12 → 24 Dec (right)



M4 · Perimeter radar change (ascending orbit 15): the control pair 30 Nov → 12 Dec and the pair spanning the landing 12 → 24 Dec look alike.

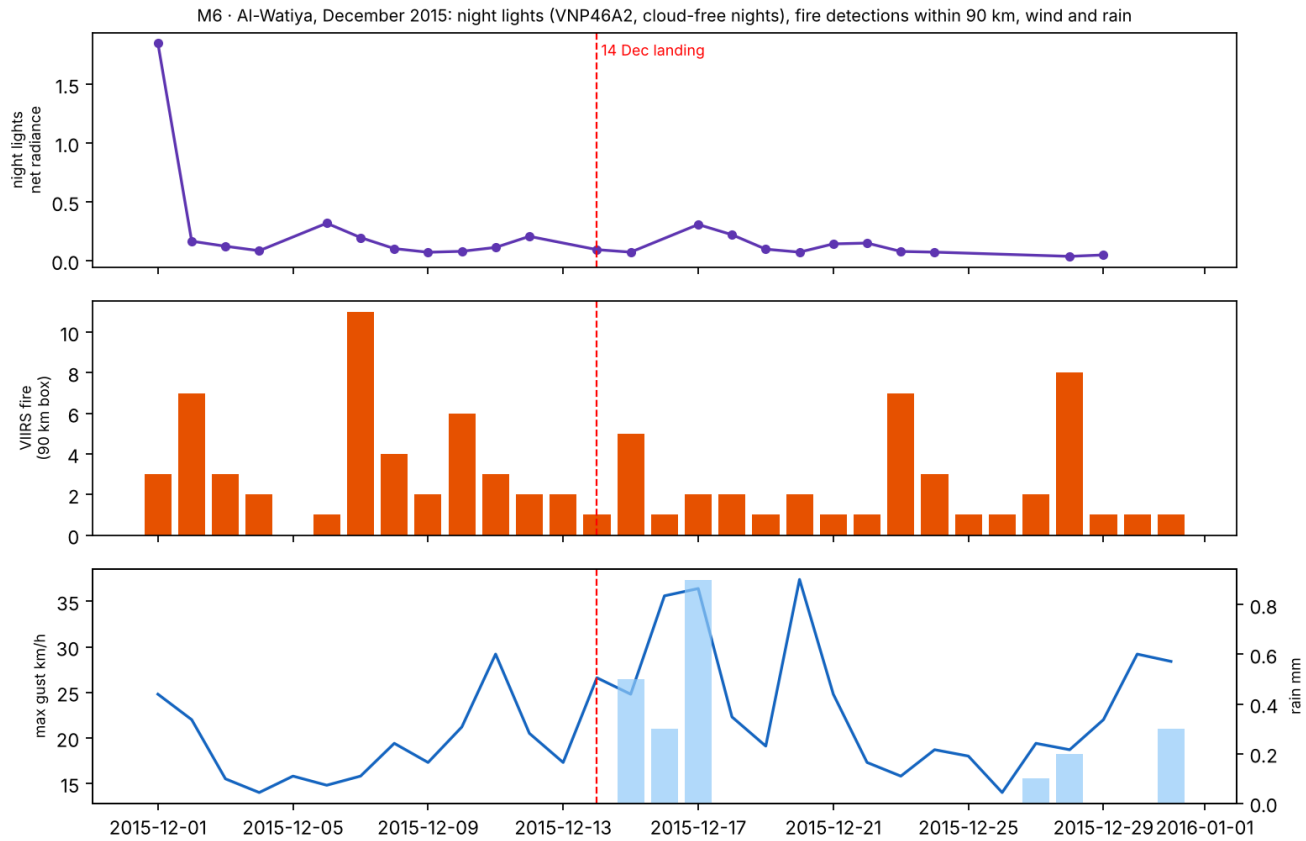
M3 · Radar brightening at 32.4815 N 11.8739 E (900 m boxes): a structure already visible on 2 Dec — not a new objec



M3 · The one spot that brightened 13 → 25 Dec, at a road loop west of the runway. Optical shows a structure there on 2 Dec (Landsat 7) and 25 Dec (Sentinel-2): a fixed object, not a new one.

Radar pair	Spans 14 Dec?	Change inside the base fence	Reading
6 → 18 Nov (asc.)	no	2,386 px, all brighter	Rain: whole base brighter
18 → 30 Nov (asc.)	no	12,346 px, all darker	Drying: whole base darker
30 Nov → 12 Dec (asc.)	no — control	170 px	Quiet
12 → 24 Dec (asc.)	**yes**	**139 px**	**Quiet — no different from the control**
1 → 25 Dec (desc.)	yes	727 px (24-day gap)	Scattered; largest cluster 31 px; see M3

4. Fire, night lights and weather through the month



M6 · Night lights (VNP46A2, nights at least 70% cloud-free), VIIRS fire detections in the 90 km box, and ERA5 gusts and rain. Red line: 14 Dec.

4.1 **Fire.** 87 VIIRS detections in the 90 km box in December, none within 30 km of the base. Almost all are two persistent industrial sources: the Mellitah gas complex on the coast (55 km north-east, 21 days) and a source

92 km south-west (24 days). Nothing on 13–15 December stands out.

4.2 **Night lights.** The base was dark all month — net radiance about 0.1, at background, including the night of 14 December (0.09). The spikes on 1 and 26 December fall on part-cloudy nights and are not reliable. No lighting surge around the landing.

4.3 **Weather.** Clear and light wind before dawn on the 14th (above). Rain fell on 15–17 and 27–31 December; gusts reached about 37 km/h on 17 and 20 December.

5. The Libyan Air Force photos, against our imagery

5.1 **The post.** The Libyan Air Force chief-of-staff page posted three photos on 16 December 2015 with this statement (RWI translation): "On 14/12/2015 at exactly six in the morning a US military aircraft carrying 20 American soldiers landed on the airstrip of Al-Watiya air base without prior coordination with the base protection force. The soldiers got off in a combat posture — wearing body armour, with modern silenced weapons, pistols, night-vision devices and GPS units. They were quickly dealt with by the national soldiers guarding the base. The force surrendered itself to the base soldiers and, when questioned, claimed there was coordination with some parties in the Libyan army. The response of your heroic army at Al-Watiya was: leave immediately. The unit left after all the equipment with them was seized and, by what they said, headed for #Italy." Signed: Abu Bakr al-Siddiq Battalion.

5.2 **The aircraft.** Photo 2 shows tail number **13097**, which The Aviationist matched to C-146A Wolfhound (Dornier 328) N307EF of the 524th Special Operations Squadron. About a dozen people are visible beside it; the post says 20.

5.3 **When.** All three photos are in full sunlight with clear sky, so they were taken after about 08:30 local, when the sun cleared a few degrees — probably mid-morning (sun south-east, 9–23° high between 09:00 and 10:30). The team was therefore on the ground for at least two and a half hours, consistent with the questioning and seizure the post describes. In Photo 1 a team member still holds a suppressed carbine, so it was probably taken before the equipment was seized; Photo 3 shows bags loaded onto a light vehicle.

5.4 **Where.** Photo 2: the aircraft's left side faces the camera, nose to the left, and is lit by the sun from behind the photographer. With a south-east morning sun, the nose points between west and south-west — consistent with the runway (≈095°/275°) and the western taxiways, and with landing toward the west into the light south-south-west wind. It is parked at the edge of pavement, with sand underfoot. Photo 1: a cracked concrete hardstand with parked pickups — one of the aprons or dispersal pans. Photo 3: a single-storey building with a pitched metal roof, an elevated water tank and eucalyptus trees, with flat scrub and a line of pylons or masts on the horizon. Sentinel-2 at 10 m shows the base's building clusters but not individual roofs, trees or masts, so Photos 1 and 3 cannot be pinned to a building. Sub-metre archive imagery (Maxar or Airbus, Dec 2015 or nearby) would let each be matched.

Libyan Air Force Facebook post, 16 Dec 2015 — the three photos of the 14 Dec landing at Al-Watiya

Photo 1 · suppressed carbine; concrete hardstand

Photo 2 · C-146A '13097' (N307EF), left side, nose to the left, sunlit; base pickup

Photo 3 · gear loaded onto a light vehicle; single-storey building, water tank, eucalyptus; power line on horizon

Source: Libyan Air Forces Chief of Staff page (Facebook), facebook.com/libyan.air.forces/posts/1071558019541128 (archived 5 Jan 2026). Reproduced for analysis.

G2 · The three photos posted by the Libyan Air Force on 16 Dec 2015. Reproduced for analysis.

G1 · Al-Watiya airfield, Sentinel-2 25 Dec 2015 (10 m) — the photos against our imagery

North up. Photo 2 fits the runway/west taxiways (aircraft facing W–SW); Photos 1 and 3 cannot be placed on individual buildings at 10 m. Contains modified Copernicus Sentinel data 2015.

G1 · Al-Watiya airfield, Sentinel-2 25 Dec 2015: the runway, the heading of the C-146A in Photo 2 and the morning sun. Photos 1 and 3 cannot be placed on individual buildings at this resolution.

6. What this means for DECODEDELTA1

6.1 The December 2015 landing is confirmed by reporting (IBTimes UK, Libyan Express, NBC, The Aviationist) but leaves no trace in the open satellite record at 10–30 m — consistent with a single small aircraft on the ground for a few hours. The satellites can rule out anything larger: no new installation, no sustained presence, no fires, no lighting at the base that month.

6.2 What would add to it: commercial very-high-resolution archive imagery (sub-metre) for 14–15 December 2015, if any was taken, to pin the three Libyan Air Force photos to buildings; and any surviving ADS-B or MLAT record of the C-146A (none in RWI's archive).

6.3 HC-003 (revision 1) is superseded on this point: the 2015 month **can** now be imaged, and shows nothing out of pattern.

Sources

• Landsat 7/8 Collection 2 L2 (USGS), Sentinel-2 L2A and Sentinel-1 RTC (Copernicus; Element 84 / Microsoft Planetary Computer), December 2015; NASA FIRMS area API (VIIRS S-NPP SP), RWI key agent Gazda; NASA Black Marble VNP46A2; ERA5 reanalysis via Open-Meteo. RWI pipeline: data/history/al-watiya-2015-12-full/, data/firms-area/al-watiya-2015-12-90km.csv.
• Libyan Air Forces chief-of-staff page, Facebook post of 16 Dec 2015, facebook.com/libyan.air.forces/posts/1071558019541128 (archived 5 Jan 2026); The Aviationist, 18 Dec 2015 (C-146A 13097 / N307EF).
• Guide reporting (as in HC-003): IBTimes UK, 17 Dec 2015; Libyan Express, 19 Dec 2015; The Aviationist, 18 Dec 2015; NBC News, Dec 2015.