

Serious incident between

the AIRBUS A320 registered **TS-INP** operated by Nouvelair and

the AIRBUS A320 registered **OE-IJZ** operated by easyJet Europe on Sunday 21 September 2025 at Nice

- **	A 1.24. 201					
Time	Around 21:30 ¹					
Type of flights	Passenger commercial air transport, scheduled flights					
Persons on board	TS-INP: captain (PF ²), co-pilot (PM), 4 cabin crew, 176					
	passengers					
	OE-IJZ: captain (PF), co-pilot (PM), 4 cabin crew, 170					
	passengers					
Consequences and damage	None					
This is a courtesy translation by the BEA of the Preliminary Report on the Safety Investigation. As						

This is a courtesy translation by the BEA of the Preliminary Report on the Safety Investigation. As accurate as the translation may be, the original text in French is the work of reference.

Note: This preliminary report is based on information available to the BEA at this stage of the investigation. It does not prejudge the conclusions that the BEA may formulate in its final report.

Approach at night on a runway engaged by an aeroplane lined up ready for take-off, near-collision, rejected landing

1 HISTORY OF THE FLIGHT

Note: the following information is principally based on the CVR and FDR from both aircraft, first statements collected, radio-communication recordings³ and radar data.

The crew of the Airbus A320 registered TS-INP, radio call sign Nouvelair586, took off at around 20:15 from Tunis-Carthage airport (Tunisia) bound for Nice - Côte d'Azur airport. The autopilot (AP) and the auto thrust (A/THR) management system were engaged during the climb.

The weather information in the "W" ATIS recorded at 20:12 and used by the crew of TS-INP to prepare the approach to Nice was: runway 04L for landing, runway 04R for take-off, approach RNP Z 04L, wind 080°/15 kt, visibility 10 km, scattered clouds at 1,600 ft, broken clouds at 9,000 and 14,000 ft, temperature 24 °C, dew point 20 °C, QNH 1012. The aeronautical night started at 18:20.

³ The exchanges between the controllers and the Nouvelair and easyJet crews were in English.



October 2025 BEA2025-0423

¹ Except where otherwise indicated, the times in this report are in Coordinated Universal Time (UTC). Two hours should be added to obtain the legal time applicable in Metropolitan France on the day of the event.

² The glossary of abbreviations and acronyms frequently used by the BEA can be found on its website.



At 21:10, the crew of TS-INP contacted the Nice TWR/APP⁴ controller for the first time and reported that they were in descent to FL150. The controller cleared them to descend to 4,000 ft.

Between 21:10 and 21:19, the crew of TS-INP asked the TWR/APP controller for and obtained several clearances to modify their heading in order to avoid cloud masses displayed on their weather radar.

At 21:19, at 5,900 ft, the crew of TS-INP, observing a red zone on their weather radar around intermediate fix (IF) LEMPU of the RNP Z 04L approach asked for a direct route to BISBO (IF of the RNP A 04L approach). The crew were cleared for a direct route to BISBO. At this point, they decided to opt for the RNP A 04L approach.

At the same time, the crew of the Airbus A320 registered OE-IJZ, radio call sign Alpine109E, departing from Nice and bound for Nantes, contacted the RAMP/GND controller and were cleared to start up.

At 21:21, the TWR/APP controller asked the crew of TS-INP to confirm their wish to carry out a RNP A 04L approach. The crew confirmed that they wanted a RNP A 04L (see Figure 1, point 1). The TWR/APP controller cleared them to descend to 3,000 ft to BISBO. The crew observed that the Promenade des Anglais was visible. They carried out the approach check-list.

At 21:22, the RAMP/GND controller cleared the crew of OE-IJZ to taxi and asked them to hold short of runway 04L at holding point A1. The crew read this back and started taxiing. They mentioned the poor visibility conditions on the ground.

At 21:25, the TWR/APP controller cleared the crew of TS-INP to start the RNP A approach to runway 04L after BISBO. The crew read this back correctly (point 2).

At the same time, on the GND frequency, the RAMP/GND controller repeated the instruction to the crew of OE-IJZ to hold at holding point A1 runway 04L and asked them to switch to the tower frequency (TWR/APP).

At 21:26, the crew of OE-IJZ contacted the TWR/APP controller who cleared them to cross runway 04L and follow W to W3. The crew checked that there was no aeroplane on final before crossing runway 04L.

At 21:27, the TWR/APP controller cleared the crew of OE-IJZ to line up on runway 04R and hold. The crew replied in the negative and asked to wait at holding point W3 on runway 04R because the cabin was not ready. The TWR/APP controller approved this.

At 21:28, TS-INP passed FN04A in descent towards MN04A (point 3). The autopilot was in FINAL APP mode.

At 21:30, the TWR/APP controller cleared the crew of TS-INP to land on runway 04L (point 4) and the crew read this back correctly. The aeroplane passed MN04A (MAPt of RNP A 04L) at 2,000 ft in descent. They followed a heading of 357°. The PF disengaged the autopilot.

⁴ At the time of the occurrence, the TWR and APP control positions were combined. A single controller was carrying out the duties linked to these two positions (see paragraph 2.4).



Thirty seconds later, the PF carried out a right-hand turn from a heading of 360° to a heading of 040°. The PF reported having the runway in sight.

At 21:30:53, flight through 1,000 ft was indicated by the radio-altimeter height automatic call-out (point 5). The indicated airspeed of the aeroplane was 138 kt⁵ and its rate of descent 1,100 ft/min. The aeroplane was on a heading of 015° in a right-hand turn at 3.4 NM from threshold 04R.

At the same moment, the PM of OE-IJZ reported to the TWR/APP controller that they were at holding point W3 of runway 04R and ready for departure.

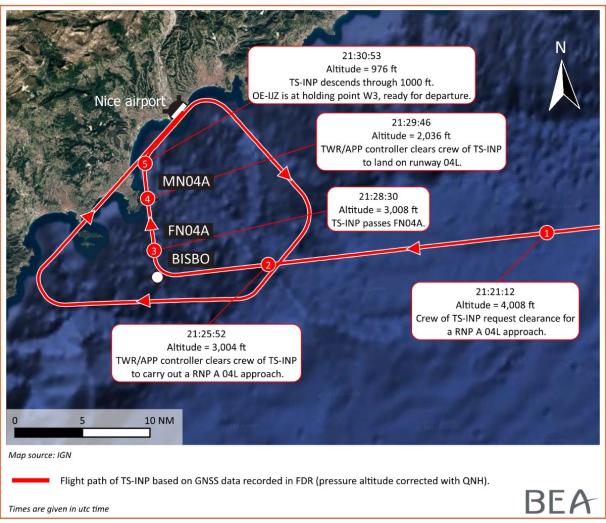


Figure 1: TS-INP's flight path

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⁵ The target approach speed (VAPP) was 136 kt.



At 21:30:58, the TWR/APP controller asked the crew of OE-IJZ to line up on runway 04R and to hold (see Figure 2, point 6). The crew of OE-IJZ read this back correctly.

At 21:31:25, TS-INP descended through 560 ft on a heading of 051°. The PF asked the PM to replace the flight directors (FD) with the flight path vector (Bird) on the PFD.

At 21:31:36, TS-INP was aligned with the axis of runway 04R. It descended through 527 ft at 1.8 NM from the threshold of runway 04R.

At 21:31:41, the first alert level (amber alert) of a runway incursion generated by the A-SMGCS system was activated⁶ in the control tower (points 7 and 7) when OE-IJZ entered runway 04R. TS-INP was at 492 ft in descent at around 1.6 NM from the threshold of runway 04R.

At 21:31:57, the second alert level (red visual and aural warning) was activated (see points 8 and 8). TS-INP was at 448 ft in descent at around 1 NM from the threshold of runway 04R.

At 21:32:05, OE-IJZ was on the threshold stripes of runway 04R in a left-hand turn to line up on the runway centreline (point 9). The PM of OE-IJZ saw TS-INP on final. He expressed his surprise at the perceived flight path. However, the crew did not identify any conflict. TS-INP was 0.7 NM from the threshold of runway 04R, descending through 278 ft with an indicated airspeed of 141 kt and a rate of descent of approximately 1,200 ft/min (point 9).

At the same time, the TWR/APP controller contacted the crew of TS-INP to confirm runway 04L, "Nouvelair 586, I confirm 04L." The crew responded that they were on short final for runway 04L, "Short final 04L." The controller again cleared the crew to land on runway 04L, "Clear to land 04L." During this exchange, the aeroplane was approximately 0.7 NM from the threshold of runway 04R, descending from 258 to 158 ft, and continuing its descent. The 100, 50, 40, and 30 ft automatic call outs were activated in the following seconds.

At 21:32:23, TS-INP flew over OE-IJZ, which was stopped and aligned with the centreline of runway 04R (points 0 and 0). The TS-INP radio altitude value dropped from 39 ft to 10 ft in one second before rising to 24 ft in the following second⁷.

At 21:32:25, the TWR/APP controller asked the crew of TS-INP to perform a go-around (point 1). The 20 ft and "retard" automatic call outs were activated at this time in the aeroplane. The crew of TS-INP crew carried out a missed approach.

Recorded data shows that the main landing gear of TS-INP did not touch the runway.

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⁶ See chapter 2.4.3 describing A-SMGCS system.

⁷ This variation in radio-altimeter height very probably corresponds to TS-INP flying over OE-IJZ.



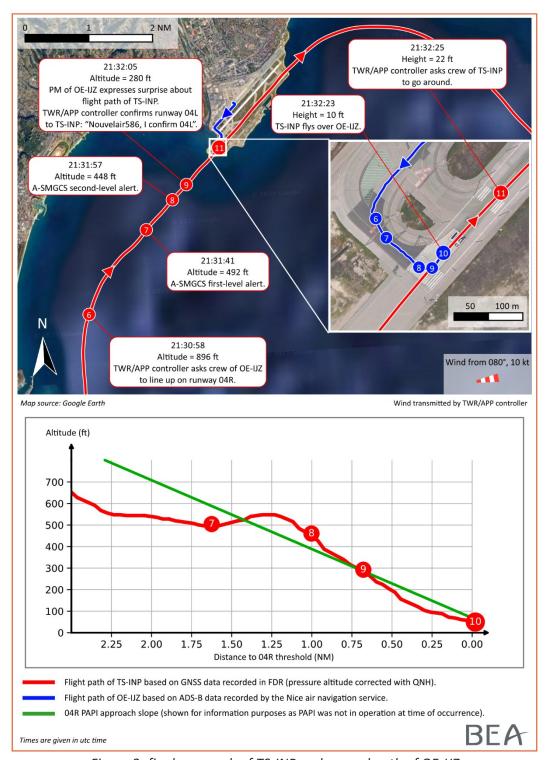


Figure 2: final approach of TS-INP and ground path of OE-IJZ

The crew of OE-IJZ requested clearance to return to the apron and the crew of TS-INP were radar vectored to join the approach procedure RNP Z 04L.

At 21:48, the crew of TS-INP landed on runway 04L.



2 ADDITIONAL INFORMATION

2.1 Meteorological information

2.1.1 General situation

The weather was unsettled between Cannes and Antibes. The surface wind was a light easterly wind until 21:30, before becoming a light northerly wind (less than 10 kt). Moderate showers appeared between 21:30 and 21:40. The visibility recorded by the sensors was greater than 10 km until 21:30, it then decreased to 2,800 m at around 21:34. There was slight turbulence caused by cumuliform clouds. There were no lightning strikes during the approach along the flight path followed by the crew.

METAR LFMN 21**2100Z** 07009KT 9999 FEW020 FEW030TCU BKN090 BKN120 24/20 Q1013 TEMPO VRB20G35KT 1500 +TSRA BKN014 BKN030CB=

METAR LFMN 21**2130Z** 12004KT 070V140 9000 -TSRA FEW023 FEW030CB BKN063 BKN090 24/19 Q1013 TEMPO VRB20G35KT 1500 +TSRA BKN014 BKN030CB=

METAR LFMN 21**2200Z** 35003KT 8000 -TSRA FEW023 SCT030CB BKN050 23/21 Q1013 TEMPO VRB20G35KT 1500 +TSRA BKN014 BKN030CB=

TAF LFMN 212000Z 2121/2303 07008KT 9999 FEW020 BKN080 BECMG 2121/2123 36010KT TEMPO 2121/2202 VRB20G35KT 1500 +TSRA BKN014 BKN030CB TEMPO 2202/2204 SHRA SCT040TCU PROB30 TEMPO 2202/2204 VRB15G25KT 4000 TSRA SCT040CB BECMG 2206/2209 23010KT TEMPO 2214/2216 23020KT BECMG 2218/2220 VRB03KT BECMG 2220/2222 33010KT=

SIGMET message for LFMM Marseille FIR:

FMM SIGMET T15 **VALID 212100/212300** LFPW- LFMM MARSEILLE FIR/UIR FRQ **TS** FCST WI N4200 E00700 - N4230 E00515 - N4445 E00600 - N4430 E00700 - N4400 E00700 - N4345 E00730 - N4345 E00745 - N4200 E00700 TOP FL420 MOV E 10KT NC



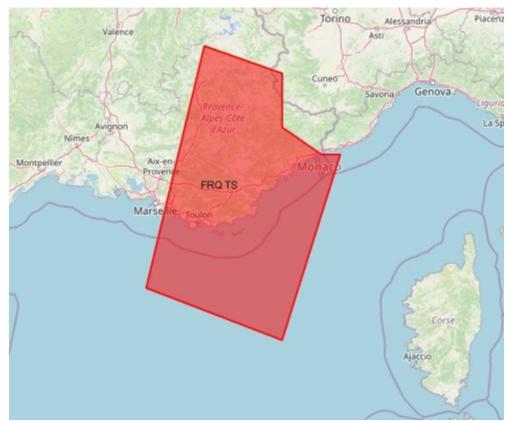


Figure 3: image associated with SIGMET valid at time of occurrence for Marseille FIR (source: report provided by Météo-France met office)

2.1.2 Airbus 320 registered TS-INP

Manufacturer	AIRBUS			
Type	A320 - 214			
Serial number	1597			
Registration	TS-INP			
Entry into service	11/2001			
Engines	2 x CFM56-5B4/P			
Operator	Nouvelair			

2.1.3 Airbus 320 registered OE-IJZ

Manufacturer	AIRBUS			
Туре	A320 - 214			
Serial number	6502			
Registration	OE-IJZ			
Entry into service	03/2015			
Engines	2 x CFM56-5B4/P			
Operator	easyJet			



2.2 Crew information

2.2.1 Crew of TS-INP

2.2.1.1 Captain

	Captain		
Sex, age	Male, aged 55		
Licence(s) (type and date of issue)	ATPL (A) issued on 23 April 2009		
Ratings	TR A319/320/321		
Other	Class 1 medical fitness certificate		
Total experience	15,180 flight hours (FH)		
Experience in last 90 days	273 FH		
Experience in last 30 days	93 FH		
Experience in last 24 hours	1 FH		

2.2.1.2 Co-pilot

	Co-pilot		
Sex, age	Male, aged 50		
Licence(s) (type and date of issue)	CPL (A) issued on 02 April 2011		
Ratings	TR A319/320/321		
Other	Class 1 medical fitness certificate		
Total experience	4,250 FH		
Experience in last 90 days	96 FH		
Experience in last 30 days	25 FH		
Experience in last 24 hours	1 FH		

2.2.2 Crew of OE-IJZ

2.2.2.1 Captain

	Captain		
Sex, age	Male, aged 53		
Licence(s) (type and date of issue)	ATPL (A) issued on 23 April 2009		
Ratings	TR A320		
Other	Class 1 medical fitness certificate		
Total experience	16,000 FH		
Experience in last 90 days	174 FH		
Experience in last 30 days	90 FH		
Experience in last 24 hours	7 FH		

2.2.2.2 Co-pilot

	Co-pilot		
Sex, age	Male, aged 25		
Licence(s) (type and date of issue)	CPL (A) issued 24 March 2023		
Ratings	TR A319/320/321		
Other	Class 1 medical fitness certificate		
Total experience	1,019 FH		
Experience in last 90 days	170 FH		
Experience in last 30 days	67 FH		
Experience in last 24 hours	7 FH		



2.3 Nice Côted'Azur airport information

2.3.1 General

Nice - Côte d'Azur airport is a civil-controlled aerodrome open to public air traffic. Due to the limited available surface area, the airport has a pair of dedicated close proximity runways; each runway in the pair is used either for landing or for take-off depending on the conditions of the day (weather conditions, traffic, etc.). The two runways are parallel, with a centreline to centreline distance of 309.5 m. In normal conditions, the north runway 04L/22R is used for landings and the south runway 04R/22L is used for take-offs. This configuration differs from the current practice of using the runway adjacent to the airport terminals for take-offs. This choice of reversing the direction of the two runways reduces the impact of noise pollution from departing flights over urban areas.



Figure 4: view of Nice airport (Source: aerodrome manual for Nice-Côte d'Azur airport)



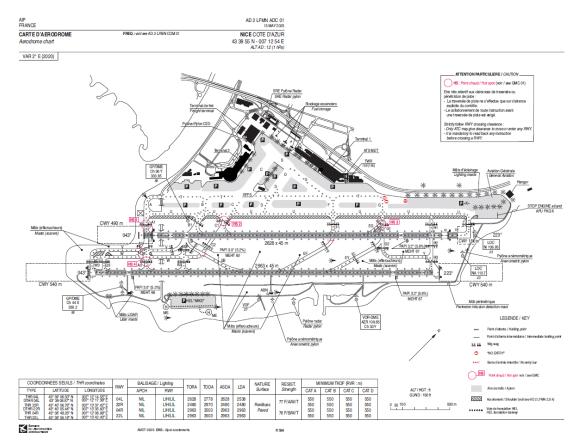


Figure 5: excerpt from AIP, Nice Côte d'Azur airport AD1 chart (source: SIA)

2.3.2 Runway characteristics

2.3.2.1 Runway 04L

The runway to be used for landing was runway 04L (magnetic orientation 043°), measuring 2,628 m long (TORA) and 45 m wide. It has a displaced threshold.

The threshold of runway 04L is not equipped with approach lights, but with runway identification flashing lights (RTIL).

Runway 04L/22R has threshold, side, and centreline lighting using THORN halogen bulbs.

The O4L PAPI is situated on the right-hand side of the runway. Due to environmental constraints, the O4L PAPI lights are spaced 4 m apart instead of 9 m to reduce their visual range to 7 km.



AD 2 LFMN.AD 2.14 BALISAGE D'APPROCHE ET DE PISTE APPROACH AND RUNWAY LIGHTING

RWY		THR	HR		TDZ MEHT Longueur Length	Balisage axial Centerline LGT			
ID	APCH	couleur colour	PAPI/VASIS			Longueur Length	Espacement Spacing	Couleur Colour	Intensité Intensity
04L	- NIL	G - LIH-LIL	PAPI 3.0 ° 5.2 %	60 ft		2628 m	30 m	W/R	LIH-LIL

Centerline lighting:

- the first light is positioned 11.26 m after THR 04L.
- centreline lighting is white, then alternately white/red over 600 m then red over the last 300 metres. Edge lighting :
- the first light is positioned 25.30 m after THR 04L.
- the edge lighting is white and yellow over the last 600 metres.
- red edge lights are located before runway thresholds 04L and 22R. RWY THR identification lights.

PAPI 04L:

- scope limited to 7000 m.
 is located on the right handside of the runway.

Figure 6: 04L approach and runway lighting – taken from AIP AD 2 LFMN.AD.2.14 (source: SIA)

Runway 04L lighting

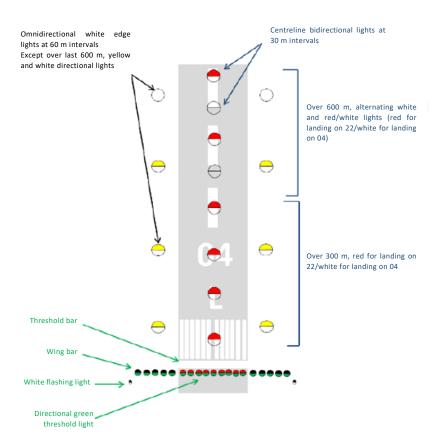


Figure 7: diagram summarizing the lighting available on runway 04L (source: DSNA - Nice tower operations manual)



At the time of the occurrence, the runway identification flashing lights (RTIL) were illuminated (the brightness level was not recorded). The threshold lights, wing bar lights, runway end lights, edge and centreline lights and the PAPI were illuminated at brightness level 1 (minimum brightness of four levels available). No anomalies were noted regarding the condition of the lighting on this runway at the time of the occurrence. There was no work in progress on runway 04L or on its lighting. The last runway inspection carried out between 17:08 and 17:11 UTC had found no anomalies with respect to the runway 04L lighting.

2.3.2.2 Runway 04R

The runway to be used for take-off was the 04R (magnetic bearing 043°), measuring 2,963 m (TORA) and 45 m wide.

The threshold of runway 04R is not equipped with approach lights, but with runway identification flashing lights (RTIL).

Since April 2022, runway 04R/22L is equipped with threshold, side and centreline lights using OCEM ENERGY TECHNOLOGY LED bulbs.

The O4R PAPI is situated on the right-hand side of the runway. Its visual range is 15 km.

AD 2 LFMN.AD 2.14 BALISAGE D'APPROCHE ET DE PISTE APPROACH AND RUNWAY LIGHTING

04R	- NIL	G- LIH- LIL	PAPI 3.0 ° 5.2 %	66 ft	2960 m	30 m	W/R	LIH-LIL
Edge lig RWY T	ine lighting (LED lights) ghting (LED lights) : wh HR identification lights. 4R is located on the rigl	ite and y	ellow over the last		then red ov	ver the last 30	0 metres.	

Figure 8: 04R approach and runway lighting - taken from AIP AD 2 LFMN.AD.2.14 (source: SIA)



Runway 04R lighting

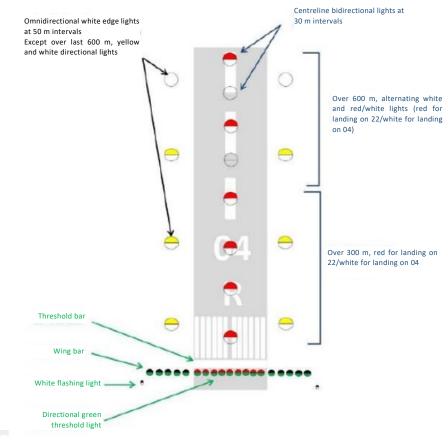


Figure 9: diagram summarizing the lighting available on runway 04R (source: DSNA - Nice tower operations manual)

At the time of the occurrence, the runway end, edge and centreline lights were illuminated at brightness level 1 (four levels available). The 04R PAPI, threshold lights, wing bar lights and threshold identification flashing lights were extinguished. No anomalies were noted regarding the condition of the lighting on this runway at the time of the occurrence. There was no work in progress on runway 04R or on its lighting. The last runway inspection carried out between 17:12 and 17:16 UTC had found no anomalies with respect to the runway 04R lighting.

At night, the runway 04R lights are much brighter than the 04L runway lights.



Runway 04L

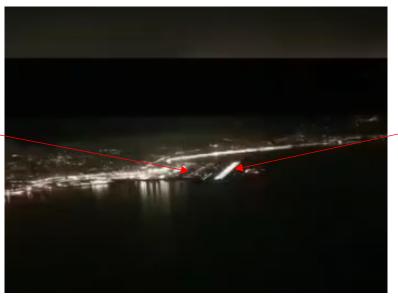


Figure 10: image taken from a video of an approach at night, date not known, brightness level of 04L and 04R lighting not confirmed

2.3.3 Lighting setting

The Nice - Côte d'Azur tower operations manual (OM) defines what lighting is to be implemented according to the procedures in force and the day/night conditions:

Lighting required to implement a procedure								
	By night							
RNP A	PAPI on runway being used for landing							
		Mont Alban fixed and						
		flashing* obstacle lights						
RNP D	PAPI on runway being used	Mont Boron fixed and						
VOR B	for landing	flashing* obstacle lights						
		Landing runway PAPI						
		Threshold identification lights						
		Mont Alban fixed and flashing						
		obstacle lights						
RNP Z	-	Mont Boron fixed and flashing						
		obstacle lights						
		Threshold identification lights						

^{*} If the flashing obstacle light is out of service but the fixed obstacle light is operational, the RNP D or VOR B procedure is implemented if horizontal visibility is greater than or equal to 10 km in the East sector.

Figure 11: table summarizing the lighting to be implemented based on the approach procedure (source: DSNA - Nice tower OM - translation)

The lighting has four brightness levels. These levels are selected based on weather conditions or at the pilot's request.

Runway 04R



	Brightness 1	Brightness 2	Brightness 3	Brightness 4
Night	V ≥ 1500	800 ≤ V < 1500	200 ≤ V < 800	V < 200
Very dark day	1500 ≤ V < 2500	800 ≤ V < 1500	400 ≤ V < 800	V < 400
Normal day		1500 ≤ V < 2500	800 ≤ V < 1500	V < 800
Bright day		2500 ≤ V < 5000	1500 ≤ V < 2500	V < 1500

V = value in metres of VIS or RVR

Figure 12: lighting brightness levels based on visibility (source: DSNA - Nice tower OM - translation)

Runway 04L and 04R each have an ILS with its own frequency. The frequency of the 04R ILS is 110.7 MHz. The frequency of the 04L ILS is 109.95 MHz.

The ILS glide path for runway 04L had been out of service since 30 April 2025 (a NOTAM had been published).

2.4 Air navigation service information

2.4.1 Air navigation personnel information

The manning of the air traffic control positions complied with the provisions of the Nice tower operations manual (OM). Four personnel were present in the control tower at the time of the occurrence:

- a tower supervisor;
- a controller in charge of the RAMP/GND positions, which were combined;
- a controller in charge of the TWR and APP positions, which were combined;
- a controller, who had previously been working and was taking a break as specified in the duty roster.

This work configuration is provided for in the OM.

→ Tower cab-Approach room closed:

(non-exhaustive configuration list. Other manning configurations can be deployed at the tower supervisor's request)

	IFR room closed								
2	3	4	5	6	7	8			
Twr supervisor/Ass GND/RAMP/TWR/ TWR2/APP/INFO	Twr supervisor GND/RAMP TWR/TWR2/APP/INFO	Twr supervisor GND/RAMP TWR/TWR2/APP/INFO TWR ASS/APP	Twr supervisor GND/RAMP TWR/TWR2/APP TWR ASS/APP INFO	Twr supervisor GND/RAMP TWR/TWR2/INFO TWR ASS APP APP ASS	Twr supervisor GND/RAMP TWR/TWR2 TWR ASS APP APP ASS INFO	Twr supervisor GND RAMP or TWR 2 TWR TWR ASS APP APP ASS INFO			

Figure 13: list of tower configurations (source: DSNA - Nice tower OM - translation)



The controllers on duty at the time of the serious incident held a unit endorsement entitled "LFMN/ZZ." This unit endorsement comprises the following ratings: ADI (aerodrome control instrument) and APS (approach control surveillance). It allows them to perform their duties in all the positions (RAMP, GND, TWR et APP) except the tower supervisor position.

Tower supervisors are appointed after consultation with the local appointments committee and appropriate training.

2.4.1.1 RAMP and GND controller

RAMP position

A RAMP controller provides control (clearance), information and alerting services to aircraft located on the ramp. The ramp is the area assigned to aircraft for passenger boarding or disembarking, mail and cargo loading and unloading, refuelling, parking, or maintenance.

GND position

A GND controller provides control, information and alerting services in their area of responsibility, which includes the manoeuvring area up to the north holding positions of north runway 04L/22R. The manoeuvring area is the portion of an aerodrome that must be used for take-offs, landings and aircraft taxiing, excluding the apron.

These two positions were combined and held by:

	RAMP/GND controller
Sex, age	Female, aged 49
Year rating obtained	2012

2.4.1.2 TWR and APP controller

TWR position

The TWR position is the combination of two sectors (TWR1 and TWR2) which can be split according to the workload. The TWR controller provides control, information and alerting services in their area of responsibility, which includes the manoeuvring area located south of the north holding positions of runway 04L/22R and within the Nice CTR, whose ceiling is 3,500 ft AMSL.

APP position

The APP position is the combination of several sectors: DEP (for departures from Nice and satellite airfields), INI, ITM, and INFO. The APP controller provides control, information and alerting services in their area of responsibility, which includes the Nice TMA.

These two positions were combined and held by:

	TWR/ APP controller
Sex, age	Male, aged 49
Year rating obtained	2000



2.4.1.3 Tower supervisor

The tower supervisor is responsible for organizing and supervising the real time operational functioning of the air traffic services of the Nice unit.

Their priority is to ensure:

- flight safety is maintained;
- operational instructions are complied with;
- capacity is optimised while respecting environmental constraints.

This role was held by:

	Tower supervisor
Sex, age	Male, aged 53
Year rating obtained	1997

2.4.1.4 Controller taking a break

The controller taking a break at the time of the serious incident was in the control tower, a few metres from the TWR position. He had worked earlier in the evening.

	Controller taking a break
Sex, age	Male, aged 37
Year rating obtained	2013

2.4.2 Information on runway 04L approach procedures

Nice-Côte d'Azur airport has several topographical, climatological and environmental characteristics that have led to the selection of procedures and operating methods.

There are four approach procedures for runway 04L:

ILS or LOC Z and Y approaches to RWY 04L

The ILS glide path for runway 04L had been out of service since 30 April 2025 (a NOTAM was available in the AIP). This procedure could not be implemented at the time of the incident.

- RNP Z approach to RWY 04L (LPV, LNAV/VNAV only)
- RNP Y approach to RWY 04L
- RNP A approach to RWY 04L/04R

The Nice control unit operations manual specified that the tower supervisor implements the RNP Z/Y or ILS/LOC Z approach for runway 04 when one or more of the following conditions are no longer met:

- visibility greater than or equal to 10 km;
- ceiling (BKN or OVC) greater than or equal to 2,500 ft by day/3,000 ft by night;
- no clouds below 2,500 ft by day/3,000 ft by night in the south-west sector (indicated by the Cap d'Antibes TNL (cloud telemetry system);
- runway PAPI operational.

At the time of the occurrence, the RNP Z RWY 04L procedure was the procedure in force indicated on the "W" ATIS. Due to adverse weather conditions (presence of cumulonimbus in the RNP Z approach sector), the two preceding aircraft (operated respectively by Tunisair (landing at 21:19) and Lufthansa (landing at 21:27) had requested an RNP A approach to RWY 04L, the approach also followed by the crew of TS-INP.



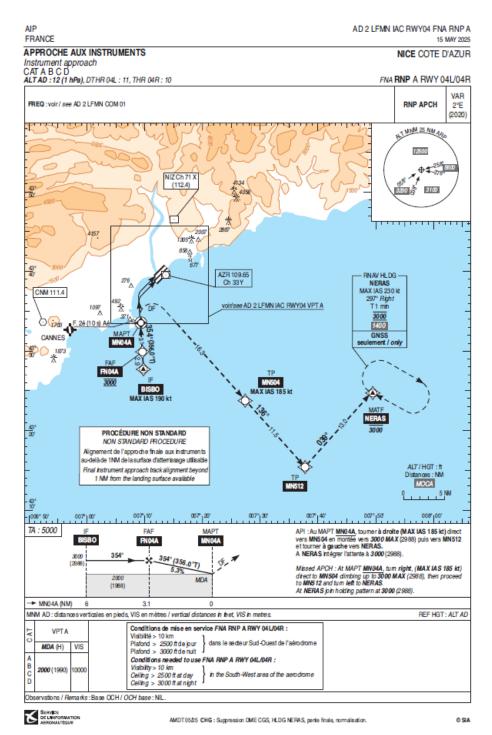


Figure 14: excerpt from AIP - AD 2 LFMN IAC RWY04 FNA RNP A chart (source: SIA)



The RNP A RWY 04L procedure is a Non-Precision Approach (NPA). The intermediate approach segment begins at Intermediate Fix (IF) BISBO and ends at Final Approach Fix (FAF) FN04A in level flight at 3,000 ft on radial 354°. This intermediate approach segment allows the crew to prepare the final approach, notably by adjusting the aeroplane's speed and configuration. The final approach segment begins at FAF FN04A and ends at Missed Approach Point (MAPt) MN04A. On this final approach segment, it is expected that the crew start descending from 3,000 ft at FAF FN04A to reach 2,000 ft at MAPt MN04A. When passing this point, if the crew do not have sight of the runway, they must perform a missed approach. If the crew have the runway in sight, they should then carry out the VPT A RWY 04L/04R approach. This first part of the procedure up to MAPt MN04 is the same whether landing on runway 04L or 04R.

From MAPt MN04A, with the runway in sight, the crew carry out a visual approach and must make a right-hand turn from heading 354° to heading 043° at the appropriate time to align with runway 04L or runway 04R depending on the landing runway in use.



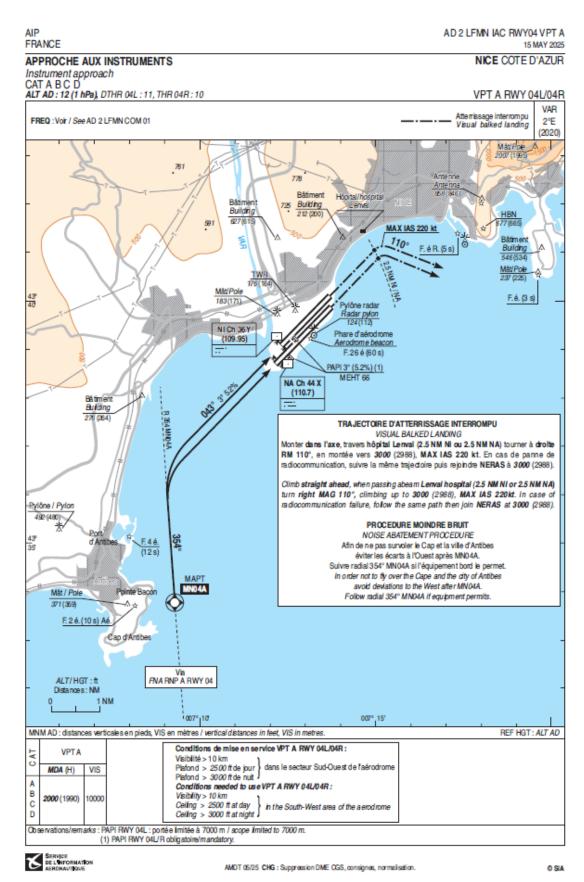


Figure 15: excerpt from AIP - AD 2 LFMN IAC RWY04 FNA VPT A chart (source: SIA)



2.4.2.1 A-SMGCS System

2.4.2.1.1 General Information

The A-SMGCS (Advanced Surface Movement Guidance and Control System) is a system to guide and control the movements of aircraft and vehicles on the ground and help ensure their safe manoeuvring in the movement area, particularly in reduced visibility conditions. This system can provide the following services:

- surveillance
- control
- routing
- guidance.

<u>European regulation (EU) 2021/116</u> introduced obligations concerning the A-SMGCS service level required for certain European airports. This system displays the current traffic situation in the aerodrome's movement area, including:

- the aerodrome's environment;
- the position of all vehicles/aircraft and obstacles in the movement area;
- the identify of cooperative vehicles/aircraft;
- the tracking of all vehicles/aircraft.

The use of the A-SMGCS by the DSNA air traffic controllers is governed by Operations Division (OD) directive No 16-94/22, which states that the A-SMGCS is a surveillance device used in the management of ground movements for the aerodrome control services. The systematic use of this equipment supplements the methods to manage ground movements in the tower. The use of the A-SMGCS does not exempt the controller from continuing to manage the strip board, direct visual observation, and radio communications. Note: This equipment must not be used to vector and separate aircraft in flight.

2.4.2.1.2 Nice - Côte d'Azur airport A-SMGCS

The system was implemented in April 2015 for Level 1 (simple surveillance service), and Level 2 (alert service for runway incursions, among others) was implemented in March 2017. The service levels are defined by ICAO since 2004 in Doc 9830. More recently, in Eurocontrol documents, the A-SMGCS service levels have been replaced by functional definitions and the services provided. The A-SMGCS system installed at Nice therefore provides airport surveillance and safety net services.

Regarding runway incursion alerts, there are two levels:

- information, shown by an amber visual alert (vehicle/aircraft label displayed in amber) between 60 s and 25 s before the incursion onto an engaged runway;
- alert, shown by a red visual alert (vehicle/aircraft label displayed in red) less than 25 s before the runway incursion, with the display of a pop-up window and an associated aural alert in the TWR position.



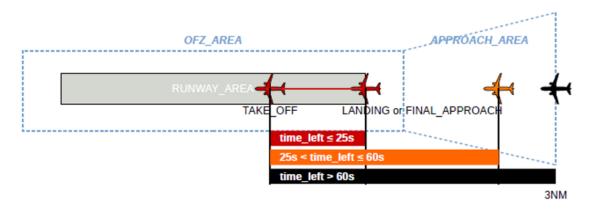


Figure 16: configuration of A-SMGCS alert net (source: SNA SE)

The Nice OM specifies that controllers can use the information displayed on one of the screens available in the TWR position to:

- check the position of aircraft on the platform;
- confirm that a runway has been vacated before a landing or a take-off.

However, the A-SMGCS must not be used to radar vector and separate aircraft in flight.

The A-SMGCS alert function is considered an aid provided to the controller. The controller is therefore the sole judge of whether or not to take into account the information or alerts provided by the system. Furthermore, there is no specific phraseology to be used when an A-SMGCS alert is triggered.

2.5 Measures taken after the serious incident

The SNA SE has taken the following precautionary measure pending additional information, which will be reviewed at a dedicated safety follow-up meeting: *VPT-type visual procedures are prohibited at night when in dedicated runway operations.*

At night, this measure has the following consequences:

- for QFU 04:
 - o in dedicated runway operations: systematic use of precision approaches or instrument approaches with vertical guidance (ILS/LOC-DME/RNPZ/RNPY);
 - o single runway operations: no restrictions.
- for QFU 22:
 - o in dedicated runway operations: use of dedicated runways only when the precision approach RNPZ to runway 22 is operational;
 - o single runway operations: no restrictions.8

2.6 Similar events

The BEA is aware of other incidents in which crews may have confused runways 04L and 04R, as well as runways 22R and 22L. The collection and study of these previous cases is ongoing. The initial elements seem to indicate that the perceived difference in brightness between the two runways could contribute to this type of confusion.

⁸ Courtesy translation of the French text.



3 NEXT STEPS OF INVESTIGATION

The validation and analysis of the parameters, as well as the analysis of the occurrence as a whole, are still ongoing. Particular attention will be paid to the following analysis points:

- a study of the weather conditions;
- a study of the RNP A RWY 04 and VPT A RWY 04 approaches;
- the impact of the difference in brightness of the runway lighting on runways 04L and 04R when carrying out approaches to the airport;
- a study of the flight crew and air traffic controller actions;
- a study of the A-SMGCS system (reliability, procedures, ATC training);
- flight crew and air traffic controller training and procedures;
- a review of runway confusion occurrences at Nice-Côte d'Azur airport that occurred prior to the serious incident and the handling of these events by the airport operator, the air operators, and the DSNA;
- additional on-board or ground systems for preventing runway incursions.

The BEA investigations are conducted with the sole objective of improving aviation safety and are not intended to apportion blame or liabilities.