



Australian Government

Civil Aviation Safety Authority

Instrument number CASA EX89/22

I, PHILIPPA JILLIAN SPENCE, Director of Aviation Safety, on behalf of CASA, make this instrument under regulations 11.160 and 11.205 of the *Civil Aviation Safety Regulations 1998*.

[Signed P. Spence]

Pip Spence

Director of Aviation Safety

1 November 2022

CASA EX89/22 – Surveillance Australia Pty Ltd – Non-display of External Lights Exemption Instrument 2022

1 Name

This instrument is *CASA EX89/22 – Surveillance Australia Pty Ltd – Non-display of External Lights Exemption Instrument 2022*.

2 Duration

This instrument:

- (a) commences on 1 November 2022; and
- (b) is repealed at the end of 31 October 2024.

3 Application

This instrument applies, according to its terms, to the following operations by Surveillance Australia Pty Ltd, ARN 532345:

- (a) a surveillance operation conducted in an SA aircraft under the IFR, for, and on behalf of, the Australian Border Force;
- (b) a search operation conducted in an SA aircraft under the IFR, for, and on behalf of, the Australian Maritime Safety Authority.

4 Definitions

- (1) In this instrument:

ACAS means air collision avoidance system.

approved ADS-B OUT equipment configuration has the meaning given by section 26.67 of the Part 91 MOS.

ATC means air traffic control.

CAR means the *Civil Aviation Regulations 1988*.

CASR means the *Civil Aviation Safety Regulations 1998*.

external lights means anti-collision lights and navigation lights within the meaning of those terms in sections 26.22 and 26.24, respectively, of the Part 91 MOS.

MOS means Manual of Standards.

navigation specification has the meaning given by subsection 1.07 (6) of the Part 91 MOS.

NVG means night vision goggles that are used in a search operation or surveillance operation to which this instrument applies, for the purposes of the operation.

Note Under this instrument, it is not a purposes of an operation that NVG be used for navigation.

operative has the meaning given by subsection 1.07 (6) of the Part 91 MOS.

pilot in command means the pilot in command of an SA aircraft conducting a surveillance operation.

SA means Surveillance Australia Pty Ltd, ARN 532345.

SA aircraft means an aircraft operated by SA for the purpose of a surveillance operation or a search operation mentioned in section 3.

search operation has the meaning given by subsection 1.07 (1) of the Part 138 MOS, and includes training that is:

- (a) for the conduct of a search operation; and
- (b) carried out in accordance with the training requirements under the Part 138 MOS that are applicable for conducting a search operation.

surveillance equipment means:

- (a) an ACAS; and
- (b) an approved ADS-B OUT equipment configuration.

surveillance operation has the meaning given by subsection 1.04 (6) of the Part 138 MOS, and includes training that is:

- (a) for the conduct of a surveillance operation; and
- (b) carried out in accordance with the training requirements under the Part 138 MOS that are applicable for conducting a surveillance operation.

- (2) In this instrument, a reference to some thing or matter being **essential for the successful conduct of an operation** means that there is no way to successfully conduct the operation without the thing or matter.
- (3) Unless the contrary intention appears, words and phrases in this instrument have the same meaning as in the Part 91 MOS and the Part 138 MOS.

5 Exemptions – Surveillance Operations – Part 91 of CASR and the Part 91 MOS

Note These exemptions **do not relieve** the pilot in command of responsibility for ensuring that radio reports and broadcasts are made in accordance with the requirements under regulation 91.630 of CASR and Division 21.2 of the Part 91 MOS.

When conducting, inside or outside Australian territory, a surveillance operation to which this instrument applies, the pilot in command is exempted from the following provisions of CASR:

- (a) paragraph 91.810 (1) (c);
- (b) subregulations 91.810 (2) and (3);

but only to the extent of the following provisions of the Part 91 MOS:

- (c) subsection 26.01 (2) — but only to the extent of, and for the purposes of, the exemptions otherwise provided for in this instrument;
- (d) subsections 26.22 (4), (5) and (6) (display of anti-collision lights);

- (e) subsection 26.24 (2) (display of navigation lights);
- (f) subsection 26.69 (2) (continuous operation of surveillance equipment).

Note Australian territory includes Australia's territorial waters, generally although not exclusively within 12 nautical miles of the land of Australia, but does not include the high seas beyond Australia's territorial waters.

6 Exemptions – Search Operations – Part 91 of CASR and the Part 91 MOS

Note These exemptions **do not relieve** the pilot in command of responsibility for ensuring that radio reports and broadcasts are made in accordance with the requirements under regulation 91.630 of CASR and Division 21.2 of the Part 91 MOS.

- (1) When conducting, within Australian territory, a search operation to which this instrument applies, the pilot in command is exempted from the following provisions of CASR:

- (a) paragraph 91.810 (1) (c);
- (b) subregulations 91.810 (2) and (3);

but only to the extent of the following provisions of the Part 91 MOS:

- (c) subsection 26.01 (2) — but only to the extent of, and for the purposes of, the exemptions otherwise provided for in this instrument;
- (d) subsections 26.22 (4), (5) and (6) (display of anti-collision lights);
- (e) subsection 26.24 (2) (display of navigation lights).

Note The effect of subsection (1) is that for a search operation conducted over Australian territory, the aircraft anti-collision lights and navigation lights need not be displayed. But see the Conditions.

- (2) When conducting, outside Australian territory, a search operation to which this instrument applies, the pilot in command is exempted from the following provisions of CASR:

- (a) paragraph 91.810 (1) (c);
- (b) subregulations 91.810 (2) and (3);

but only to the extent of the following provisions of the Part 91 MOS:

- (c) subsection 26.01 (2) — but only to the extent of, and for the purposes of, the exemptions otherwise provided for in this subsection;
- (d) subsections 26.22 (4), (5) and (6) (display of anti-collision lights).

Note The effect of subsection (2) is that for a **search operation conducted outside Australian territory**, subject to Conditions, the aircraft anti-collision lights need not be displayed, but the aircraft **navigation lights** must be displayed.

7 Conditions

- (1) Each exemption under section 5 (for surveillance operations) is subject to the conditions set out in Schedule 1.
- (2) Each exemption under sections 6 (for search operations) is subject to the conditions set out in Schedule 2.
- (3) To avoid doubt, SA and the pilot in command must each ensure that the conditions are complied with.

SCHEDULE 1 CONDITIONS — SURVEILLANCE OPERATIONS

BEFORE TAKE-OFF

- 1 Before take-off for a surveillance operation in the course of which the external lights may be switched off, SA and the pilot in command must each ensure that:
 - (a) all reasonable steps have been taken:
 - (i) to check for potential air traffic relevant to the operation; and
 - (ii) to plan to avoid collision with any expected, or unexpected, air traffic; and
 - (b) the surveillance equipment is fitted to the SA aircraft and may reasonably be expected to be operative for the operation; and
 - (c) the SA aircraft is capable of navigating to a navigation specification of RNP 4 or RNP 10, and may reasonably be expected to remain so during the operation.
- 2 Before take-off, SA and the pilot in command must ensure that the relevant operating procedures for the surveillance operation include appropriate procedural defences designed to remind flight crew members to switch the relevant external lights and the surveillance equipment back on at the conclusion of any period of the operation that involved the relevant external lights or surveillance equipment being switched off.

Note For example, the operating procedures could require use of the aircraft system reminder function as one fail-safe mechanism to ensure that redisplay of the lights or re-operation of the surveillance equipment cannot be overlooked.

DURING THE SURVEILLANCE OPERATION

Switching off lights

- 3 During a surveillance operation, the external lights of the SA aircraft must **not** be switched off:
 - (a) when the SA aircraft is in a mandatory broadcast area mentioned in section 11.10A of the Part 91 MOS; or
 - (b) when the SA aircraft is operating in controlled airspace — unless a Memorandum of Understanding (*MOU*) however described is in place with Airservices Australia, and the operating procedures to implement the MOU are included in the SA operations manual; or
 - (c) when the pilot of another aircraft requests that the lights be displayed in order to identify the SA aircraft as traffic; or
 - (d) when the pilot in command of the SA aircraft is aware of proximate traffic and there is a potential risk of collision; or
 - (e) when the aircraft is no longer capable of navigating to a navigation specification of RNP 4 or RNP 10; or
 - (f) when the ACAS equipment or approved ADS-B OUT equipment configuration fitted to the SA aircraft fails to function as intended; or
 - (g) at any other time, **UNLESS** the pilot in command considers that switching off the external lights:
 - (i) is **essential** for the successful conduct of the surveillance operation; and
Note See subsection 4 (2) for the definition of *essential*.
 - (ii) would not affect the safety of the operation.

Note Chapter 13 of the Part 138 MOS places requirements on aerial work operators and their pilots in command in relation to assessing the risks of operations and implementing appropriate safety controls to mitigate risk.

Making radio broadcasts

- 4 During a surveillance operation by night in uncontrolled airspace, every 30 minutes:
- (a) commencing when the SA aircraft's external lights are switched off; and
 - (b) ending when the SA aircraft's external lights are switched back on;
- a flight crew member must make an all stations radio broadcast on the most appropriate frequency for any nearby air traffic (whether the air traffic services area frequency, the CTAF, the inter-pilot frequency (123.45 MHz), or the guard frequency (121.5 MHz)) detailing the nature and conduct of the surveillance operation, UNLESS the pilot in command considers that not making the relevant broadcast:
- (c) is **essential** for the successful conduct of the surveillance operation; and
 - (d) would not affect the safety of the operation.

Note See subsection 4 (2) for the definition of *essential*.

Note Section 21.04 of the Part 91 MOS requires pilots in command to ensure that a broadcast is made on the CTAF when operating in the vicinity of a non-controlled aerodrome and the pilot in command considers that the broadcast is reasonably necessary to avoid the risk of a collision with another aircraft. The pilot in command of an SA aircraft must take this factor into account when determining whether it is essential and safe for the SA aircraft to operate with its external lights off.

Switching off surveillance equipment

- 5 During a surveillance operation, the ADS-B OUT functionality of the surveillance equipment must not be switched off during the following times:
- (a) when the SA aircraft is operating in controlled airspace — unless a Memorandum of Understanding (MOU) however described is in place with Airservices Australia, and the operating procedures to implement the MOU are included in the SA operations manual; or
 - (b) when the pilot in command of the SA aircraft is aware of proximate traffic and there is a potential risk of collision; or
 - (c) when the aircraft is no longer capable of navigating to a navigation specification of RNP 4 or RNP 10; or
 - (d) when the ACAS equipment fitted to the SA aircraft fails to function as intended; or
 - (e) at any other time, UNLESS the pilot in command considers that non-use of the surveillance equipment:
 - (i) is **essential** for the successful conduct of the surveillance operation; and
 - (ii) would not affect the safety of the operation.

Note See subsection 4 (2) for the definition of *essential*.

Note Chapter 13 of the Part 138 MOS places requirements on aerial work operators and their pilots in command in relation to assessing the risks of operations and implementing appropriate safety controls to mitigate risk.

SCHEDULE 2 CONDITIONS — SEARCH OPERATIONS

BEFORE TAKE-OFF

- 1 Before take-off for a search operation in the course of which any of the external lights may be switched off, SA and the pilot in command must each ensure that:
 - (a) all reasonable steps have been taken:
 - (i) to check for potential air traffic relevant to the operation; and
 - (ii) to plan to avoid collision with any expected, or unexpected, air traffic; and
 - (b) the surveillance equipment is fitted to the SA aircraft and may reasonably be expected to be operative for the operation; and
 - (c) the SA aircraft is capable of navigating to a navigation specification of RNP 4 or RNP 10, and may reasonably be expected to remain so during the operation.
- 2 Before take-off, SA and the pilot in command must ensure that the relevant operating procedures for the search operation include appropriate procedural defences designed to remind flight crew members to switch the relevant external lights back on at the conclusion of any period of the operation that involved the relevant external lights being switched off.

Note For example, the operating procedures could require use of the aircraft system reminder function as one fail-safe mechanism to ensure that redisplay of the lights or reoperation of the surveillance equipment cannot be overlooked.

DURING THE SEARCH OPERATION

Switching off lights

- 1 During a search operation, the external lights of the SA aircraft must not be switched off:
 - (a) when the SA aircraft is in a mandatory broadcast area mentioned in section 11.10A of the Part 91 MOS; or
 - (b) when the SA aircraft is operating in controlled airspace — unless a Memorandum of Understanding (MOU) however described is in place with Airservices Australia and the operating procedures to implement the MOU are included in the SA operations manual; or
 - (c) when the pilot of another aircraft requests that the lights be displayed in order to identify the SA aircraft as traffic; or
 - (d) when the pilot in command of the SA aircraft is aware of proximate traffic and there is a potential risk of collision; or
 - (e) when the aircraft is no longer capable of navigating to a navigation specification of RNP 4 or RNP 10; or
 - (f) when the ACAS equipment, or approved ADS-B OUT equipment configuration fitted to the SA aircraft fails to function as intended.
- Note* Chapter 13 of the Part 138 MOS places requirements on aerial work operators and their pilots in command in relation to assessing the risks of operations and implementing appropriate safety controls to mitigate risk.
- 2 Subject to clause 1, during a search operation:
 - (a) outside Australian territory:
 - (i) the navigation lights of the SA aircraft must not be switched off; and

- (ii) the anti-collision lights of the SA aircraft may be switched off, but only in accordance with clause 3; and.
 - (b) over Australian territory, the navigation lights and the anti-collision lights of the SA aircraft may be switched off, but only in accordance with clause 3.
- 3 The lights referred to in subparagraph 2 (a) (ii) or paragraph 2 (b) must not be switched off UNLESS the pilot in command considers that:
- (a) the effective use of NVG is **essential** for the successful conduct of the search operation; and
Note See subsection 4 (2) for the definition of *essential*.
 - (b) switching off the lights referred to in subparagraph 2 (a) (ii) or paragraph 2 (b), would:
 - (i) avoid the degraded use of NVG; and
 - (ii) not affect the safety of air navigation.

Making radio broadcasts

- 4 During a search operation by night in uncontrolled airspace, every 30 minutes:
- (a) commencing when the SA aircraft's relevant external lights are switched off in accordance with clauses 2 and 3; and
 - (b) ending when the SA aircraft's relevant external lights are switched back on; a flight crew member must make an all stations radio broadcast on the most appropriate frequency for any nearby air traffic (whether the air traffic services area frequency, the CTAF, the inter-pilot frequency (123.45 MHz), or the guard frequency (121.5 MHz)) detailing the nature and conduct of the search operation.

Switching off surveillance equipment

- 5 During a search operation, the surveillance equipment must **not** be switched off.
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