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| Flight no: | NVFR(A)6.\_\_\_\_ | Trainee name & ARN: |  | | |
| Date: |  | Instructor: |  | | |
| Aircraft registration: |  | Aircraft type: |  | Flight time: |  |

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| Lesson Overview  * Night navigation route: [Enter navigation route] * Circuits and full stop landing at [enter location] * Revise instrument flight * Diversion |

| PRE-FLIGHT KNOWLEDGE  Long Briefing: 0.8 hour Pre-flight Briefing: 0.3 hour  Underpinning knowledge: as required | |
| --- | --- |
| Content | |
| **Long briefing** – Night Navigation   * LSALT calculations * Weather considerations * Aerodrome lighting and navigation aid requirements * Flight plan and ‘mud map’ preparation * Alternates – selection and planning * Inadvertent entry into IMC * ‘Black hole’ effect | |
| **Underpinning knowledge** [NVR2 4(a)-(q)]   * Navigation requirements for:   + a night visual flight using radio navigation systems   + a night visual flight using self-contained or long-range navigation systems   + a night visual flight using visual reference to ground and water * Navigation tolerance for a night visual flight avoiding CTA * Requirements for:   + positive radio fixing   + the most precise track guidance * Navigation requirements for night visual flight with respect to time interval between fixes, accuracy of time reference, and accuracy and procedures in track-keeping * Procedures for night visual flight in all classes of airspace when diverting from track due to navigation or weather * Route for night visual flight with respect to forecast weather, controlled airspace, prohibited, restricted and danger areas, specific route limitations, airways operational requirements and availability of published routes, enroute alternate aerodromes, navigation aids, rated coverage and radio communication * Compulsory reporting points * Route, aircraft equipment and navigation requirements for night VFR * LSALT for a night visual flight for a route published on a chart * Dimensions of the significant safety sector when calculating LSALT for a route not published on a chart * Methods of calculating LSALT for a route not published on a chart * Calculation of LSALT when uncertain of position * Conditions for descent below LSALT * Pre-flight altimeter accuracy check for a night visual flight * Altimetry procedures to all stages of a night visual flight * Operating at aerodromes where surrounding light is limited * Part 61 MOS Schedule 3 Section 2.7:   + the privileges and limitations of the rating   + the minimum NVFR aircraft equipment requirements   + aircraft landing area dimension and lighting requirements   + the principles of operations, limitations and errors for the radio navigation systems used   + the flight planning/notification requirements including lowest safe altitude (LSALT), weather, fuel and lighting   + the requirements for departure and descent for clearance from terrain   + the alternate aerodrome planning requirements   + the operation of Pilot Activated Lighting (PAL)   + the air traffic control (ATC) procedures relevant to NVFR operations | |
| **HF & NTS**   * Part 61 MOS Schedule 3 Section 2.7:   + the human factors and physiological limitations for the conduct of operations at night as described in CASA guidance material for NVFR operations * Use of checklists and standard operating procedures to prevent errors [NTS2 4(h)] * Task management including [NVR 4(i)]:   + workload organisation and priority setting to ensure optimum safe outcome of the flight   + event planning to occur in a logical and sequential manner   + anticipating events to ensure sufficient opportunity is available for completion   + using technology to reduce workload and improve cognitive and manipulative activities   + task prioritisation and protection whilst filtering and managing real time information | |
| **Pre-flight briefing**   * Review flight sequences, what to expect, see & do * Check essential knowledge * Reinforce threat & error management * Reinforce significant airmanship points | |
| * **Schedule Night VFR aeronautical knowledge examination** | |
| **Pre-flight knowledge components complete:** | **Instructor’s signature & date** |

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| Performance Standard | | |
| **3** | **2** | **1** |
| Has received training in the element, however is not able to consistently demonstrate competency to the standard required for qualification issue | Demonstrates a developing level of proficiency, and is deemed safe to conduct solo practice under direct supervision | Achieves competency to the standard required for qualification issue |

| FLIGHT TRAINING  Suggested flight time: 2.0 hours dual (night) (0.2 IF) | | | |
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| MOS Reference | Lesson Content (Elements & Performance Criteria) | Performance  Standard | |
| Required | Achieved\* |
| 1. NVR2.2 | Obtain and use current operational documents |  |  |
|  | operational documents applicable to the flight are obtained and checked for currency | 2 |  |
|  | applicable information contained in documents for flight planning and management is interpreted and applied | 2 |  |
|  | documents required for the flight are stowed and accessibility for the pilot during flight is ensured | 2 |  |
| 1. NVR2.3 | Prepare flight plan for NVFR flight |  |  |
|  | charts suitable for intended NVFR flight are selected and prepared | 2 |  |
|  | applicable information to prepare a flight plan which details tracks, distances, times, altitudes to be flown and fuel requirements to reach destination are obtained, analysed and applied | 2 |  |
|  | meteorological, airways facilities, aerodrome and NOTAM information applicable to planning and conducting a flight is obtained, interpreted and applied | 2 |  |
|  | routes to optimise options in the event of an engine failure are planned | 2 |  |
| 1. NVR2.4 | Determine operational requirements |  |  |
|  | holding, alternate and reserve fuel requirements due to weather, navigation aid availability and aerodrome lighting are determined in accordance with operational requirements | 2 |  |
| 1. NVR2.5 | Make flight notification |  |  |
|  | flight notification is prepared for planned NVFR flight | 2 |  |
|  | completed flight notification is submitted | 2 |  |
|  | flight notification acceptance is confirmed | 2 |  |
| 1. NVR2.6 | Program navigation system |  |  |
|  | prepare data for transfer to approved airborne navigation system | 2 |  |
|  | navigation data is loaded and checked | 2 |  |
| 1. NVR2.7 | Select, operate and monitor navigation aids and systems |  |  |
|  | appropriate navigation aids and systems for the planned NVFR flight are selected and operated in accordance navigation aid and system requirements | 2 |  |
|  | integrity of navigation aid and systems information is monitored and maintained | 2 |  |
| 1. NVR2.8 | Make visual departure at night |  |  |
|  | obstacle clearance is ensured until reaching LSALT | 2 |  |
|  | departure track is intercepted within 5 nm of aerodrome | 2 |  |
|  | conduct take-off and departure from an aerodrome which is remote from ground lighting as follows: |  |  |
|  | * + 1. climb out after take-off, using instruments as the primary reference | 2 |  |
|  | * + 1. after take-off checks are performed at a safe height | 2 |  |
| 1. NVR2.9 | Navigate the aircraft under NVFR |  |  |
|  | cockpit and instrument lighting are adjusted to allow reference to documentation, instruments and lookout | 2 |  |
|  | manages and interprets outputs of on-board navigation systems | 2 |  |
|  | aircraft position fix is determined visually or with reference to navigation aid and system | 2 |  |
|  | updates navigation log | 2 |  |
|  | maintains fuel log | 2 |  |
|  | uses a recognised navigation work cycle | 2 |  |
|  | tracks are intercepted to and from visually or with reference to navigation aids and systems | 2 |  |
|  | track is maintained within tolerances specified in published procedures | 2 |  |
|  | timings are recorded, assessed and revised as required | 2 |  |
|  | station passage is recognised | 2 |  |
|  | planned route above LSALT is maintained | 2 |  |
|  | route and destination weather conditions are monitored and appropriate actions are executed | 2 |  |
|  | descent point is calculated and amended | 2 |  |
| 1. NVR2.11 | Manage hazardous weather conditions |  |  |
|  | hazardous weather conditions are identified and avoided | 2 |  |
|  | procedures for avoidance of hazardous weather are demonstrated and explained | 2 |  |
|  | aircraft systems are employed to mitigate the effects of hazardous weather | 2 |  |
| 1. NVR2.12 | Manage emergency situations at night |  |  |
|  | (in simulated conditions) aircraft control is maintained | 2 |  |
|  | emergency situation is managed in accordance published procedures | 2 |  |
|  | electrical lighting and power sources are monitored | 2 |  |
|  | electrical lighting and power source emergency procedures are conducted as appropriate | 2 |  |
| 1. NVR2.13 | Conduct a diversion to revised route or alternate aerodrome at night |  |  |
|  | requirement for an unplanned diversion is recognised and confirmed | 2 |  |
|  | route to alternate aerodrome, navigation aid and revised track is determined | 2 |  |
|  | planned route maintains height above LSALT in accordance with regulations while flying under NVFR | 2 |  |
|  | flight planned route is diverted to track to an alternate aerodrome, navigation aid or aerodrome | 2 |  |
|  | operational information for alternate aerodrome(s) is reviewed and applied according to published procedures | 2 |  |
|  | fuel plan is reviewed and amended according to published procedures | 2 |  |
| 1. NVR2.14 | Make visual approach at night |  |  |
|  | descent below LSALT is conducted in accordance with published procedures; | 2 |  |
|  | track is maintained to destination aerodrome | 2 |  |
|  | conduct an approach and landing at an aerodrome that is remote from extensive ground lighting | 2 |  |
| 1. NVR2.15 | Perform a go-around |  |  |
|  | the need to conduct a go-around is recognised | 2 |  |
|  | go-around is performed from any point on base and final approach legs | 2 |  |
| 1. IFF.1 | Determine and monitor the serviceability of flight instruments and instrument power sources | 2 |  |
| 1. IFF.2 | Perform manoeuvres using full instrument panel | 2 |  |
| 1. IFL.1 | Recognise failure of attitude indicator and stabilised heading indicator | 2 |  |
| 1. IFL.2 | Perform manoeuvres – limited panel (during normal cruise) | 2 |  |

\*Enter the performance standard achieved if it is different to that required

Where it has not been possible to introduce performance criteria or the trainee has not achieved the required standard, the performance criteria must be covered during the next lesson. Enter these performance criteria in the lesson record for the subsequent lesson.

| CONSOLIDATION AND/OR REMEDIAL TRAINING | | | |
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| MOS Reference | Lesson Content (Elements & Performance Criteria) | Performance  Standard | |
| Required | Achieved |
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| DEBRIEFING |
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| Content |
| * Training review and outcomes achieved against lesson objectives and the Part 61 MOS competency standards * Recommendations for next lesson (including any carryover/remedial training) * Trainee preparation for next lesson * Training record completion and sign off |

| COMMENTS AND OUTCOME | | |
| --- | --- | --- |
|  | | |
| **Proceed to next training session?** | **Yes** | **No** |

| Instructor’s signature & date | Trainee’s signature & date |
| --- | --- |
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