

Runway Safety Maturity Checklist

| ATC | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element ? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element ? | Index |
|-----|--|--|---|---|--|--|-------|
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| ATC | ATC procedures to ensure that ATIS is updated in a timely manner and the action is recorded and/or directly broadcasted e.g. including a) SPECIs b) Wind shear reports (pilot and/or system derived) c) PIREP d) Soliciting Pilots for updates e) Runway Surface Conditions f) Approach aid status (unavailability) e) Other | Meteorological information is provided, timely and accurate | | | | | |
| ATC | Agreement between ATC and Meteorological office to notify ATC of changing weather conditions | ATC receives accurate and timely weather information where PIREPs are not provided or meteorological conditions are different from the ATIS. | | | | | |
| ATC | ATC procedures for provision of timely, accurate and clear instructions to Flight Crew including position, track and distance information based on aircraft type and performance to convey traffic management intentions e.g. following a) any updates b) change to sequence c) turning a/c in close d) vectoring e) before approach gate (e.g. 5nm from airport or 1nm from final approach fix which ever is farther) provide position and distance information. f) vector aircraft to intercept the glidepath from below g) aircraft off published approach due wx, wake turbulence separation etc. h) other | ATC providing instructions to establish / maintain / re-establish a stabilised approach | | | | | |

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|-----|--|---|---|--|--|--|-------|
| ATC | ATC flow control procedures manage ATC capacity to ensure provision of track and distance information allowing for prevailing meteorological conditions | ATC workload is managed to ensure timely, accurate and clear instructions are provided to Flight Crew including required position, track and distance information | | | | | |
| ATC | ATC supervisor and controller roles and responsibilities require monitoring of controller environment, workload, distractions, and internal or external pressures are not influential. | | | | | | |
| ATC | ATC procedures for late notice runway changes that reduce track miles require planning and assessment of a) aircraft type and performance capability b) vectoring and resequencing to re-establish aircraft profile c) tail wind affect on profile speed d) approach type (i.e. precision/non-precision/visual) e) ICAO noise / capacity criteria for approach requirements dictate acceptability of runway selection f) other | ATC providing instructions to establish / maintain / re-establish a stabilised approach | | | | | |
| ATC | ATC procedures to review aircraft performance guidance material in consultation with Airlines. | Alignment between ATC instruction and airline SOPs for aircraft type, performance and stable approach criteria. | | | | | |

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|-----|--|---|---|--|--|--|-------|
| ATC | ATC procedures require: a) speed control is only applied outside final approach fix b) ATC monitoring of separation c) query any pilot deviation with speed, or other instruction d) effective communication and coordination between Tower and Approach e) other | Prescribed wake turbulence separation standards are maintained | | | | | |
| ATC | ATC procedures to monitor air speed through Mode S down link of actual aircraft parameters to controller | Controller situation awareness | | | | | |
| ATC | NOTAM system requires publication of approach aid status, runway surface condition (SNOWTAM) | Accurate information to pilots | | | | | |
| ATC | ATC procedures specify the criteria for offering visual approaches recognising the priority of precision/non-precision approaches over visual approaches | Fly precision approaches when available - reduce risk of visual approach | | | | | |
| ATC | ATC procedures require ATC to visually scan aircraft on approach and alert Flight Crew of significant flight path/profile deviation, and respond to pilot requests. | Independent prompt to pilot to consider go-around | | | | | |
| ATC | ATC procedures provide criteria to aid decision making in go around situations (e.g. piggy back issue) | Correct ATC actions to manage separation assurance in go around situations | | | | | |
| ATC | ATC procedures require notification and update to Flight Crew of runway surface condition, including request for runway surface / state inspection | Clear expectation to pilots with regard to required braking system settings | | | | | |

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| ATC | ATC procedures for selection of active runway include consideration of runway surface conditions. | To have runway in use suitable for prevailing conditions | | | | | |
| ATC | ATC procedures detail requirements for protection of critical and sensitive areas of approach aids and runway strip including notifications of obstructions to flight crew. | Prevent deviations in guidance information | | | | | |
| ATC | ATC procedures require monitoring of approach aid status. | Detect failure in approach aid to inform pilot | | | | | |
| ATC | ATC training, checking and assessment regimes verify use of ICAO compliant phraseology including readback/hearback techniques | Standard phraseology applied by all parties | | | | | |
| ATC | ATC procedures require taxiway exit requests only to be provided to landing aircraft after completion of the landing phase. | To enable pilot to maintain directional control of the aircraft | | | | | |
| ATC | ATC provide a mechanism to gain feedback from Airlines regarding ongoing suitability of approach procedures. | Continual improvement | | | | | |
| ATC | Just culture policy and procedures | Robust and complete reporting, trusting non-punitive environment | | | | | |
| ATC | Fatigue risk management system | Controllers fit for duty | | | | | |
| ATC | Drug and alcohol management program | Controllers fit for duty | | | | | |

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| ATC | Fitness for Duty policy and procedures | Controllers fit for duty | | | | | |
| ATC | CRM/TEM/MCRM procedures | Teamwork, improved risk management, appropriate decision making | | | | | |
| ATC | Human Factors training | Understanding human performance and limitations | | | | | |
| ATC | OHS policy and procedures (conducive workplace environment e.g. lighting, temperature, humidity, air quality, ergonomics, noise, distraction etc) | Environment to support optimal performance | | | | | |

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| AIRLINE | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element? | Index |
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| | | | | | | | |
| Airline | Pilot SOPs indicate the stage of approach (e.g. TOD, pre flight briefing) ATIS should be monitored and require a PIREP is to broadcast if the meteorological conditions are different to the ATIS. Eg a) Wind shear reports b) Wake turbulence c) Request ATC updates d) TAF and METAR d) Other | | | | | | |
| Airline | Airline SOPs require pilot monitoring of track miles, height or speed on approach including a) confirmation with ATC of new track distance, height or speed information and ATC plans b) rejection of instructions that are outside the SOPs including interception above glidepath | Sufficient / accurate track and distance information is provided by ATC (including sequence change, deviation from track) | | | | | |
| Airline | Airline SOPs require the use of local knowledge in assisting with determining required track miles. | | | | | | |
| Airline | Airline SOPs to advise ATC of changes to aircraft type, performance and stable approach criteria. | | | | | | |

| AIRLINE | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element ? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element ? | Index |
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| Airline | Airline SOPs require Flight Crew to: a) Utilise precision approaches where available b) Brief appropriately for non-precision / visual approach when precision approaches are not available. c) Bpply Airline SOPs criteria for use of non-precision and visual approaches d) Request appropriate published instrument approach procedure to a runway with visual vertical guidance (e.g. PAPI, VASIS etc) e) Other | | | | | | |
| Airline | Airline SOPs to ensure cross cockpit communication minimises internal/external pressures and power gradient so that decision to continue can be instantly challenged without recourse. | | | | | | |
| Airline | Airline procedures support a Just Culture where a go-around or relected take-off is required. (e.g. management support for PF decision to initiate a go-around) | Initiate a go-around when aircraft becomes unstable as specified in Airline SOPs | | | | | |
| Airline | Airline SOPs detail energy management on approach and landing phase: a) for airspeed, thrust, drag, flight path, braking application etc b) standard calls by PNF to alert PF including current automation mode c) to ensure correct profile or initiate go-around. | | | | | | |

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|---------|---|---|---|--|--|--|-------|
| Airline | Airline SOPs require cross check of information (e.g. rad alt Vs distance) and appropriate response to on-board alerts and cross checks including approach aid status | | | | | | |
| Airline | Airline SOPs to assure appropriate use of automation | | | | | | |
| Airline | Pilot procedures require notification to ATC of runway surface condition. | ATC will advise other pilots of runway surface condition, may change runway in use. | | | | | |
| Airline | Airline SOPs prescribe braking settings according to runway surface conditions | | | | | | |
| Airline | Airline SOPs for recovery from : a) failure of avionics b) failure of undercarriage or braking systems c) failure of flight and propulsion systems d) FMS indicated gross error check | | | | | | |
| Airline | Training, checking and assessment to verify use of ICAO compliant phraseology including readback/hearback procedures | | | | | | |
| Airline | Mechanism to provide feedback to ATC regarding ongoing suitability of approach procedures. | | | | | | |

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| Airline | Conducting effective pre-flight planning and pre-departure briefing including flight planning packages / NOTAM summaries | | | | | | |
| Airline | Airline SOPs detail pre-flight review, walkarounds, acceptance of Minimum Equipment List (MEL), system checks | | | | | | |
| Airline | Just culture policy and procedures | | | | | | |
| Airline | Fatigue risk management system | | | | | | |
| Airline | Drug and alcohol management program | | | | | | |
| Airline | CRM/TEM/MCRM procedures | | | | | | |
| Airline | Fitness for Duty policy and procedures | | | | | | |
| Airline | Human Factors training | | | | | | |
| Airline | OHS policy and procedures (conducive workplace environment e.g. lighting, temperature, humidity, air quality, ergonomics, noise, distraction etc) | | | | | | |
| Airline | Airline enables improvement by providing evidence of reports, analysis, recommendations and implementation of change to procedures/practices/facilities to improve runway safety performance | Application of the SMS for continual improvement to procedures and practices to maximise runway safety performance | | | | | |

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| AERODROME | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element? | Index |
|-----------|--|---|---|--|--|--|-------|
| Aerodrome | Provision of weather information systems (ATIS / AWIS / Windssock / Windshear alerting system/weather radar/runway visibility and range monitoring systems) to provide real-time meteorological information. | | | | | | |
| Aerodrome | Provision of available, reliable and accurate precision approach aids a) Redundancy / diversity in system architecture | | | | | | |
| Aerodrome | Aerodrome procedures for a) conduct of runway inspections including surface conditions and state b) reporting and repair (e.g. contamination, FOD, damage) c) periodic inspection, reporting and maintenance of lighting, signage, markings and taxiway condition | | | | | | |
| Aerodrome | Aerodrome procedures for provision of runway visibility information to ATC. | | | | | | |
| Aerodrome | Runway and taxiway layout is designed to optimise runway safety performance by a) being consistent with ICAO requirements b) include RESA and/or other arrestor systems c) appropriate position, length, width, gradient and surface characteristics, friction coatings, grooving, surface texturing and drainage optimised for prevailing conditions, including alternatively aligned runway d) provision of adequate runway (edge & centreline) / taxiway lighting | | | | | | |

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|------------------|---|---|---|--|--|--|-------|
| Aerodrome | Availability of ICAO compliant aviation rescue and fire fighting service | | | | | | |
| Aerodrome | Emergency planning arrangements which include Airlines, ATC, Aerodrome and emergency services | | | | | | |
| Aerodrome | Training, checking and assessment to verify use of ICAO compliant phraseology including readback/hearback procedures (airside vehicle operators) | | | | | | |
| Aerodrome | Transponder equipage of vehicles required to operate airside where ground surveillance is available | | | | | | |
| Aerodrome | Provision of adequate taxiway and holding point lighting in accordance with ICAO standards | | | | | | |
| Aerodrome | Development and implementation of a Snow and Ice Control Plan | | | | | | |
| Aerodrome | Partial and full closure of taxiway and runways in accordance with ICAO defined criteria including use of displaced thresholds. | | | | | | |
| Aerodrome | Established means to address aerodrome runway safety issues between airlines, ATC and aerodrome operators through a) Established Runway Safety Teams b) Airport safety committees where runway safety is a standing agenda item c) other | | | | | | |
| Aerodrome | Just culture policy and procedures | | | | | | |

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| Aerodrome | Fatigue risk management system | | | | | | |
| Aerodrome | Drug and alcohol management program | | | | | | |
| Aerodrome | CRM/TEM/MCRM procedures | | | | | | |
| Aerodrome | Fitness for Duty policy and procedures | | | | | | |
| Aerodrome | Human Factors training | | | | | | |
| Aerodrome | OHS policy and procedures (conducive workplace environment e.g. lighting, temperature, humidity, air quality, ergonomics, noise, distraction etc) | | | | | | |
| Aerodrome | Aerodrome enables improvement by providing evidence of reports, analysis, recommendations and implementation of change to procedures/practices/facilities to improve runway safety performance | Application of the SMS for continual improvement to procedures and practices to maximise runway safety performance | | | | | |

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| ATEL/ANAV | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element? | Index |
|-----------|---|--|---|--|--|--|-------|
| | | | | | | | |
| ATEL/ANAV | System maintenance regime to ensure sufficient availability and reliability of ATIS/AWIS etc. When system is not in service, an appropriate alternative method of providing meteorological information should be available. | | | | | | |
| ATEL/ANAV | System design requirements specify requirement to flag out of date information presented at the ATC console | Correct meteorological information displayed at ATC console | | | | | |
| ATEL/ANAV | Integrated air traffic management system includes meteorological information integrated into Flow control | Planning of runway changes to minimise negative impact on Airlines | | | | | |
| ATEL/ANAV | Just culture policy and procedures | | | | | | |
| ATEL/ANAV | Fatigue risk management system | | | | | | |
| ATEL/ANAV | Drug and alcohol management program | | | | | | |
| ATEL/ANAV | CRM/TEM/MCRM procedures | | | | | | |
| ATEL/ANAV | Fitness for Duty policy and procedures | | | | | | |
| ATEL/ANAV | Human Factors training | | | | | | |

| ATEL/ANAV | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element ? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element ? | Index |
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| ATEL/ANAV | OHS policy and procedures (conducive workplace environment e.g. lighting, temperature, humidity, air quality, ergonomics, noise, distraction etc) | | | | | | |
| ATEL/ANAV | ATEL/ANAV provider enables improvement by providing evidence of reports, analysis, recommendations and implementation of change to procedures/practices/facilities to improve runway safety performance | Application of the SMS for continual improvement to procedures and practices to maximise runway safety performance | | | | | |

Runway Safety Maturity Checklist

| Regulator / Government | Element What are you looking for? For example, "Do you have....." | Objective Why are you looking for it? | Does the element exist? Is it written down (e.g. procedure)? Does it exist (e.g. equipment, signs, markings etc)? Details | Training Are people trained in the use of the element? Remedial and/or Refresher training? Details | Is it working? How do you know? (e.g. incident reports, analysis, corrective action, feedback) Details | Improvement What could you do to improve this element? | Index |
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| | | | | | | | |
| Regulator / Government | AIP requirement for pilots to notify ATC of receipt of current ATIS | | | | | | |
| Regulator / Government | Approach design criteria are applied and checked to ensure optimal published approach | ATC and Pilots utilise published approach procedures utilising precision approaches where available. | | | | | |
| Regulator / Government | Regulator / Government specifies the requirement to protect sensitive and critical areas approach aids | | | | | | |
| Regulator / Government | Regulations are appropriate, reviewed and optimised for runway safety performance with regard to a) airport siting b) design c) ongoing master planning including upgrade to taxiways / markings and signage lighting to meet future aircraft design changes, capacity requirements and to address incursion/confusion hotspots d) restricting on building development within aerodrome PANS-OPS and Obstacle Limitation Surface (OLS) and minimising mechanical turbulence | | | | | | |
| Regulator / Government | Review and update of certification requirements and aligned to ICAO standards, recommendations and international best practice | | | | | | |

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| Regulator / Government | Effective liaison between civil and military organisations to achieve a) optimal approaches b) alignment with ICAO compliant phraseology c) coordination including restricted area activation / deactivation and airspace release d) alignment with civil and military procedures e) other | | | | | | |
| Regulator / Government | Curfew dispensation when a go-around is required | | | | | | |
| Regulator / Government | Approach procedures are periodically validated to ensure ongoing suitability for expected aircraft type, equipage and performance | | | | | | |
| Regulator / Government | Alignment of policy across applicable government agencies | | | | | | |
| Regulator / Government | Airlines, aerodromes, manufacturers and ANSPs collaborating with Regulator / Government during development of technological change and certification | | | | | | |
| Regulator / Government | Regular and formalised communication between Regulator / Government, government and ANSPs | | | | | | |
| Regulator / Government | Regulator provides a mechanism to gain feedback from pilots and ATC regarding ongoing suitability of approach procedure | | | | | | |
| Regulator / Government | Just culture policy and procedures | | | | | | |

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| Regulator / Government | Fatigue risk management system | | | | | | |
| Regulator / Government | Drug and alcohol management program | | | | | | |
| Regulator / Government | CRM/TEM/MCRM procedures | | | | | | |
| Regulator / Government | Fitness for Duty policy and procedures | | | | | | |
| Regulator / Government | Human Factors training | | | | | | |
| Regulator / Government | OHS policy and procedures (conducive workplace environment e.g. lighting, temperature, humidity, air quality, ergonomics, noise, distraction etc) | | | | | | |
| Regulator / Government | Regulator / Government enables improvement by providing evidence of reports, analysis, recommendations and implementation of change to procedures/practices/facilities to improve runway safety performance | Application of the Regulator SMS for continual improvement to procedures and practices to maximise runway safety performance | | | | | |