HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

(For Use of Heliport Safety Inspectors)			
Heliport Name			
Heliport Reference Code		Heliport Operator	
Inspection Type		Inspection Date	
Report Number		Report Date	
Name of Heliport Certification Project Manager		Signature	

GENERAL INSTRUCTION

1. This form of technical inspection must be filled with by GACA Heliport Safety Inspectors/Certificate Project Manager.
2. This form shall be used for the Technical Inspection during the Heliport certification process and thereafter for surveillance and un-Announced Inspections.
3. Heliport inspector, on completion of technical inspection for area of his/her expertise, shall complete and submit this form to heliport certificate project manager.
4. For any clarification, the General Manager (Aerodrome Standards) of General Authority of Civil Aviation, Kingdom of Saudi Arabia, may be contacted.

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

GACA Regulations Reference	Items for Inspection	Compliance	Non-Compliance	Not Applicable	Notes/Remarks
SUBPART F - PHYSICAL CHARACTERISTICS					
1. Onshore Heliports					
FATO 138.301(a) to (g)	Length, Width, Slope, Surface, Bearing Strength, drainage etc.;	☐	☐	☐	
Safety Area 138.301 (h) to (l)	Length, Width, Slope, Obstacle presence, type of surface etc.;	☐	☐	☐	
Protected Area 138.301 (m) to (o)	No side slopes, rising slope, distance, obstacle presence etc.;	☐	☐	☐	
Clearway 138.301 (p) to (t)	Length, width, slope, surface, obstacle presence etc.;	☐	☐	☐	
TLOF 138.301 (u) to (ff)	Length, Width, Slope, Surface, Bearing Strength, friction, drainage etc.;	☐	☐	☐	
Helicopter Taxiway 138.301 (gg) to (hh)	Width, Transverse slope, bearing strength, downwash resistance, drainage, free of obstacles etc.;	☐	☐	☐	
Helicopter Tax-Route 138.301 (jj) to (ll)	Width, Transverse slope, downwash resistance, drainage, free of obstacles etc.;	☐	☐	☐	
Helicopter Ground Taxi-Route 138.301 (mm) to (nn)	Width, slope, height of lights & obstacles, Outward gradient, surface etc.;	☐	☐	☐	
Helicopter Air Taxi-Route 138.301 (oo) to (qq)	Width, height of lights & obstacles, slope, transverse slope, longitudinal slope, surface etc.;	☐	☐	☐	
Helicopter Stand 138.301 (rr) to (vv)	Dimensions, Surface, downwash resistance, Bearing Strength, friction, drainage, protection area, mean slope etc.;	☐	☐	☐	
Protection Area 138.301 (ww) to (ccc)	Dimensions, obstacles, upward slope, surface, type of use – simultaneous or non simultaneous, taxi through or turning etc.;	☐	☐	☐	
Location of FATO 138.301 (ddd) to (eee)	FATO Edge distance from Runway Edge and Taxiway Edge, simultaneous and non-simultaneous operations;	☐	☐	☐	
2. Helidecks					
FATO 138.303 (a) to (c), (g)	Dimensions, slope, surface, Bearing Strength, Coincident or Collocated, free of obstacles etc.;	☐	☐	☐	
TLOF 138.303 (d) to (n), (p)	Dimensions, slope, surface, Bearing Strength, drainage, ground effect, surface friction, obstacle free sector, un-obstructed airgap etc.;	☐	☐	☐	
Safety Area 138.303 (o)	Dimensions, slope, surface, free of obstacles etc.	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

3. Shipboard Heliports					
General 138.305 (a) to (b)	Type of FATO and TLOF – Coincidental or not, purpose built or not etc.;	☐	☐	☐	
FATO 138.305 (c), (d), (j), (k)	Dimensions, surface, bearing strength, slope, friction resistance, free from obstacles, environmental effects etc.;	☐	☐	☐	
TLOF 138.305 (e) to (r)	Type of TLOF – Coincidental or collocated, Breading strength, purpose built or non-purpose built, obstacle free sector, un-obstructed airgap, landing headings, skid resistance surface etc.;	☐	☐	☐	
Safety Area 138.305 (p)	Dimensions, surface, slope, Free of obstacles etc.	☐	☐	☐	
SUBPART G: OBSTACLE ENVIRONMENT					
1. Obstacle Limitation Surfaces and Sectors					
Approach Surfaces 138.401 (a) to (h)	Approach Surfaces-Description, Characteristics, dimensions, slope, inner edge, outer edge, divergence, straight or curved, obstacle outside surfaces etc.;	☐	☐	☐	
Transitional Surfaces 138.401 (i) to (l)	Transitional Surfaces-Description, Characteristics, dimensions, slope etc.;	☐	☐	☐	
Take-off Climb Surface 138.401 (m) to (u)	Take-off Climb Surfaces-Description, Characteristics, dimensions, slope, clearway provided, curved surface, obstacle outside surface etc.;	☐	☐	☐	
2. Obstacle-Free Sector/Surface - Helidecks					
Obstacle-Free Sector/Surface 138.401 (v) to (x)	Description, Characteristics, dimensions, slope, obstacle free sector, surface above helideck level, surface below helideck level etc.	☐	☐	☐	
3. Obstacle Limitation Requirements					
Surface Level Heliports 138.403 (a)	Establishment of (1) Take-off climb surface, (2) Approach surface, and (3) Transitional surfaces for PinS approach with VSS;	☐	☐	☐	
Surface Level Heliports 138.403 (b)	Establishment of (1) Take-off climb surface, and (2) Approach surface without VSS;	☐	☐	☐	
Surface Level Heliports 138.403 (c) to (h)	Nos of approach and take-off climb surfaces, Slopes of OLS, Obstacle free surfaces, Protected side slope etc.;	☐	☐	☐	
Elevated Heliports 138.403 (i) to (k)	Nos of approach and take-off climb surfaces, Slopes of OLS, Obstacle free surfaces, Protected side slope etc.;	☐	☐	☐	
Helidecks 138.403 (l) to (p)	Obstacle free sector, Slopes of OLS, Protected side slope etc.;	☐	☐	☐	
Shipboard Heliports 138.403 (q)	Obstacle free sector, Slopes of OLS, Protected side slope etc.;	☐	☐	☐	
Purpose-built Heliports 138.403 (r)	Obstacle free sector, Slopes of OLS, operated Ares-bow or stern etc.;	☐	☐	☐	
Amidships Location 138.403 (s) to (u)	Purpose-built or non-purpose built, Obstacle free sector, Slopes of OLS etc.;	☐	☐	☐	
Ship's side Location 138.403 (v) to (x)	Non purpose built, Obstacle free sector, Slopes of OLS etc.;	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

Winching Area 138.403 (y) to (cc)	Dimensions, maneuvering zone, clear zone, obstacle free area, height of objects etc.;	☐	☐	☐	
SUBPART H: VISUAL AIDS					
1. Indicators					
Wind direction indicator 138.501 (a)	Location, Dimensions L, WD(lanner), WD(outer), color, nos of bands, air-flow distribution, illumination and condition etc.	☐	☐	☐	
2. Markings and Markers					
Winching Area Marking 138.503 (a)	Location, Dimensions, color, clear zone, maneuvering zone, no obstruction zones etc.;	☐	☐	☐	
Heliport Identification Marking 138.503 (b)	Location, Dimensions, color and condition etc. Check for surface/hospital/helideck;	☐	☐	☐	
Maximum Allowable Mass Marking 138.503 (c)	Location, Dimensions, color and condition etc.;	☐	☐	☐	
D-value Marking 138.503 (d)	Location, Dimensions, color and condition etc.;	☐	☐	☐	
FATO Perimeter Marking 138.503 (e)	Location, Dimensions, color and condition of marking or markers etc.;	☐	☐	☐	
FATO Designation Marking 138.503 (f)	Runway type FATO-Location, Dimensions, color and condition etc.	☐	☐	☐	
Aiming Point Marking 138.503 (g)	Location, Dimensions, color and condition etc.;	☐	☐	☐	
TLOF Perimeter Marking 138.503 (h)	Location, Dimensions, color and condition etc.;	☐	☐	☐	
Touch Down/Position Marking 138.503 (i)	Location, Dimensions, color and condition etc.;	☐	☐	☐	
Heliport Name Marking 138.503 (j)	Location, Dimensions, color and condition etc.;	☐	☐	☐	
Helideck obstacle-free marking 138.503 (k)	Location, Dimensions, color, free of obstacles, direction, condition etc.;	☐	☐	☐	
Helideck and heliport surface marking 138.503 (l)	Location, Dimensions, color, dynamic load bearing area, condition etc.;	☐	☐	☐	
Helicopter Taxiway marking & marketers 138.503 (m)	Taxiway centerline, taxiway edge line, taxiway edge marker frangibility (if provided), dimensions, color, condition, marker's illumination (night operation) etc.;	☐	☐	☐	
Helicopter Air-Taxiway route marking & marketers 138.503 (n)	Taxiway centerline, taxiway edge line, taxiway edge marker frangibility (if provided), dimensions, color, condition, marker's illumination (night operation) etc.;	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

Helicopter Stand Markings 138.503(o)	Location, Dimensions, lead-in/lead-out lines, stop line, TDPM marking, stand identification nos if more than one, color and condition etc.;	☐	☐	☐	
Flight Path Alignment Guidance Marking 138.503(p)	Location, Dimensions, Aero dimensions, color and condition etc.;	☐	☐	☐	
Closed FATO or Stand Marking	Location, light color, condition of lights etc.	☐	☐	☐	
3. Lights					
Heliport Beacon 138.505 (b)	Location, color, flashes, intensity, condition of lights etc.;	☐	☐	☐	
Approach Lighting System 138.505 (c)	Location, color, dimensions, configuration, intensity settings, sequence flashing, condition of lights etc.;	☐	☐	☐	
Flight Path Alignment Guidance Lighting System 138.505 (d)	Location, color, intensity, direction, configuration, numbers, spacing, condition of lights etc.;	☐	☐	☐	
Visual Alignment Guidance System 138.505 (e)	Location, light color, height, angles, intensity, condition of lights etc.;	☐	☐	☐	
Visual Approach Slope Indicator 138.505 (f)	Location, light color, angles, intensity, condition of lights etc.;	☐	☐	☐	
FATO Area Lighting System 138.505 (g)	Location, spacing, height, configuration, light color, intensity, condition of lights etc.;	☐	☐	☐	
Aiming Point Lights 138.505 (h)	Location, spacing, height, configuration, light color, intensity, condition of lights etc.;	☐	☐	☐	
TLOF Area Lighting System 138.505 (i)	Location, spacing, height, configuration, light color, intensity, flood lights lux (if provided) condition of lights etc.;	☐	☐	☐	
Helicopter Stand Floodlighting 138.505 (j)	Location, light color, height, flood lights lux level, condition of lights etc.;	☐	☐	☐	
Winch Area Floodlighting 138.505 (k)	Location, light color, height, flood lights lux level, condition of lights etc.;	☐	☐	☐	
Taxiway Lighting System 138.505 (l)	Location, spacing, height, configuration, light color, intensity, condition of lights etc.;	☐	☐	☐	
Visual Aids for Denoting Obstacle outside and below OLS Surfaces 138.505 (m)	Location, light color, intensity, condition of lights etc.;	☐	☐	☐	
Floodlighting of Obstacles 138.505 (n)	Location, light color, luminance, condition of lights etc.;	☐	☐	☐	
Closed FATO or Stand Lighting	Location, light color, condition of lights etc. (Provided where night operation).	☐	☐	☐	
SUB PART I: HELIPORT EMERGENCY RESPONSE					
1. Heliport Emergency Planning					
138.601 (a)	Whether Heliport emergency plan is	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

	established;				
138.601 (b)	Whether HEP Committee is established;	☐	☐	☐	
138.601 (c)	Whether agencies' are identified who can assist in responding to emergency at heliport or in near vicinity;	☐	☐	☐	
138.601 (d)	Whether coordination and cooperation exist with other agencies at heliport or in vicinity;	☐	☐	☐	
138.601 (e)	Whether HEP includes provision for identified agencies for rescue services in case heliport approaches are overwater;	☐	☐	☐	
138.601 (f)	Whether HEP include type of emergencies, Procedure for initiation of plan, list of agencies with names, phone, role of agencies, written agreement with agencies, grid map of heliport and immediate vicinity etc.;	☐	☐	☐	
138.601 (g)	Whether HEP include consultation process with agencies;	☐	☐	☐	
138.601 (h)	Whether Fixed Operation center and a mobile command post exist;	☐	☐	☐	
138.601 (i)	Whether sufficient medical services and facilities are available at heliport;	☐	☐	☐	
138.601 (j)	Whether HEP is reviewed and updated regularly;	☐	☐	☐	
138.601 (k)	Whether HEP contain procedures for full scale and partial emergency exercises. Also check whether such exercise are conducted timely and deficiencies found during exercise are attended.	☐	☐	☐	
2. Rescue and Firefighting					
138.603(a)(1)	Check whether all applicable specifications are implemented and RFF services and equipment are provided;	☐	☐	☐	
138.603(a)(2)	Whether level of protection provided is adequate as per intended use to heliport;	☐	☐	☐	
138.603(a)(3)	Whether risk assessment has been performed to determine sufficient quantity of Principal and Complimentary agents;	☐	☐	☐	
138.603 (b)(1)	Whether the response time has been determining and meet the requirements of discharge rates capacity;	☐	☐	☐	
138.603 (b)(2)(3)	Whether the RFF categorization i. e. H0 to H3 has been determined on bases of the fuselage dimensions of critical/most used helicopter as given in table I-1;	☐	☐	☐	
138.603 (b) (4)(5)	Check whether practical critical area calculation for dispersed pattern RFF has been determined considering TLOF and FATO-Load bearing area;	☐	☐	☐	
138.603 (c)	Check whether extinguishing agents are determined considering performance levels and discharge rates and minimum duration as per table I-2 and I-3 considering the type of heliports;	☐	☐	☐	
138.603 (d)	Check whether response time meets the prescribed requirement considering type of the heliports;	☐	☐	☐	
138.603 (e)	Check whether rescue arrangements commensurate with overall risk of helicopter operation and minimum prescribed	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

	equipment are provided;				
138.603 (f)	Whether communication and alerting system has been provided;	☐	☐	☐	
138.603 (g)	Whether sufficient and trained RFF personnel has been provided as per task analysis study and protective gears available;	☐	☐	☐	
138.603 (h)	Whether means of escape and Emergency access roads provided as per type of heliport.	☐	☐	☐	
SUBPART J: ELECTRICAL SYSTEMS					
1. Electrical power supply systems for air navigation facilities					
138.701 (a)	Whether heliport has been provided adequate power supply;	☐	☐	☐	
138.701 (b)	Whether heliport has been provided reliable power supply;	☐	☐	☐	
138.701 (c)	Whether heliport has been provided with standby power with automatic changeover system;	☐	☐	☐	
138.701 (d)	Whether change over interval time between failure and restoration of power is in prescribed limits;	☐	☐	☐	
2. Visual Aids					
138.703 (a)	Whether power supply for visual aids is provided as per prescribed provisions;	☐	☐	☐	
3. System Design					
138.705 (a)(b)	Whether the designed electrical systems, where standby power is provided, is independent of each other;	☐	☐	☐	
4. Monitoring					
138.707 (a)	Whether monitoring system to indicate status of lighting is provided and functional;	☐	☐	☐	
SUBPART K: OPERATIONAL SERVICES, EQUIPMENT AND INSTALLATIONS					
1. Wildlife strike hazard reduction					
138.801(a)(1 to 3)	Check as to how the incident reports are obtained and evaluated;	☐	☐	☐	
138.801(b)	Check as how the wildlife strike incidents are reported to GACA;	☐	☐	☐	
138.801(c)	Whether actions are taken to reduce the wildlife hazards at the heliport and vicinity;	☐	☐	☐	
138.801(d)	Whether heliport operator has taken action on removal/eliminate the sources of bird hazards at heliport and near vicinity;	☐	☐	☐	
138.801(e)(f)	Whether heliport operator has taken action to alleviate wildlife hazards;	☐	☐	☐	
138.801(g)	Whether heliport operator conduct wildlife hazard assessment through professional personnel, maintain record and take action;	☐	☐	☐	
138.801(h)(i)	Whether heliport operator have system of assessment of wildlife hazard and submit report to the GACA;	☐	☐	☐	
138.801(j)	Whether training is provided to heliport personnel to carry out wildlife hazard management plan.	☐	☐	☐	
2. Disabled helicopter removal					
138.803(a)(b)	Whether heliport operator has established plans for removal of disabled helicopters;	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

3. Helicopter Apron/Parking stands management service					
138.805(a)	Whether heliport operator provided apron/stand management service for movement of helicopters and vehicles;	☐	☐	☐	
4. Ground Servicing of helicopter					
138.807(a)	Whether sufficient arrangement of fire extinguishing equipment are provided at heliport/parking stand during operations;	☐	☐	☐	
138.807(b)	Whether helicopter refueling is done while passengers are embarking or on board. If yes, plans are available emergency escape;	☐	☐	☐	
138.807(c)	Whether ground service facilities and equipment are provided for passenger and cargo handling at certified heliports.	☐	☐	☐	
5. Vehicle Operations on Heliport					
138.809(a)(b)(c)	Check whether rules are provided for vehicle entry and operation in heliport movement area;	☐	☐	☐	
138.809(d)	Check whether training has been provided to all vehicle drivers for driving in heliport movement area;	☐	☐	☐	
138.809(e)	Check whether vehicles are provided with two-way radio communication equipment.	☐	☐	☐	
6. Sitting of equipment and installations on operational areas					
138.811(a)	Check whether all equipment provided in FATO, TLOF and Safety area are necessary and meets requirement.	☐	☐	☐	
7. Security Fencing and Access Control					
138.813 (a to e)	Check whether security fence and access control has been provided for operational area at heliport;	☐	☐	☐	
138.813(f)	Check whether height and location of security fence does not infringe the OLSs;	☐	☐	☐	
138.813(g)	Check whether sufficient clear area is provided around the fence for security patrols, if heliport required such security arrangements.	☐	☐	☐	
8. Security lighting					
138.815(a)	Whether heliport has been provided with security lighting and if yes check for proper illuminance at security fence, access points etc.	☐	☐	☐	
9. Dangerous goods					
138.817(a)	Whether certified heliport has provided special area for storage of dangerous goods and RFF staff is trained to handle the dangerous goods.	☐	☐	☐	
SUBPART L: HELIPORT MAINTENANCE					
1. General					
138.901(a)	Whether heliport operator has developed a heliport maintenance program;	☐	☐	☐	
138.901(b)	Whether heliport operator has considered and implemented human factor principles in heliport maintenance program.	☐	☐	☐	
2. Surfaces and Pavements					
138.903(a)(b)(c)	Whether heliport operator has developed	☐	☐	☐	

HELIPORT SAFETY INSPECTOR TECHNICAL INSPECTION CHECKLIST

(GACAR PART 138)

	inspection and maintenance program for FATO, TLOF, Safety and other movement areas.				
3. Removal of contaminants					
138.905(a)(b)(c)	Check whether heliport operator has a contaminants removal procedure and does not use harmful chemicals.	☐	☐	☐	
4. Visual aids					
138.901(a)	Check whether system of preventive maintenance is implemented to ensure reliability of lighting systems;	☐	☐	☐	
138.901(b)	Check beam intensity of various lighting systems are in prescribed limits;	☐	☐	☐	
138.901(c)(d)(e)	Check whether in-field intensity measurements are conducted specially for approach lights and visual approach slope indicators, if provided at heliport;	☐	☐	☐	
138.901(f)	Check whether preventive maintenance and inspection program ensure check for prescribed serviceability standards;	☐	☐	☐	
138.901(g)	Check whether low visibility restrictions are implemented during operation at heliport.	☐	☐	☐	

Additional Information, if any:
(Heliport Safety Inspector shall write any additional information/findings observed during the technical inspection in the space given below.)

DETAILS OF GACA HELIPORT SAFETY INSPECTORS			
No.	Name	Signature	Date
1.			
2.			
3.			

DETAILS OF GACA HELIPORT CERTIFICATION PROJECT MANAGER			
No.	Name	Signature	Date
1.			