SAUDI ARABIAN OIL COMPANY (Saudi Aramco)

GENERAL INSTRUCTION MANUAL

ISSUING ORG. AVIATION DEPARTMENT

SUBJECT BUDGETING, CONSTRUCTION, APPROVAL AND MAINTENANCE OF AIRSTRIPS AND HELIPORTS

GI NUMBER Approve			
1305.000			
ISSUE DATE	REPLACES		
07/05/2017	09/15/2013		
APPROVAL	PAGE NO.		
MAA	1 OF 5		

CONTENT:

This instruction describes the procedure for budgeting, construction approval and maintenance of airstrips and heliports.

1.0 **DEFINITIONS:**

- 1.1 Saudi Aramco Airstrip: A runway intended for use by Saudi Aramco aircraft. Generally, these airstrips will be built and maintained by Saudi Aramco within the Saudi Aramco working areas.
- 1.2 Saudi Aramco Heliport: A helicopter landing site intended for use only Saudi Aramco aircraft or contracted aircraft by Saudi Aramco. Generally, these heliports will be built and maintained by Saudi Aramco within Saudi Aramco working areas. Helidecks are included within this definition.
- 1.3 Remote Site Airstrip: A Saudi Aramco Airstrip for temporary use only. Generally, these airstrips will not be paved and are used primarily by the Drilling & Workover and Exploration Organizations.
- 1.4 User Department: A Saudi Aramco Department, Division, or Saudi Aramco contractor requiring air transportation services (either airplane or helicopter) by the Saudi Aramco Aviation Department.

2.0 BUDGETING PROCEDURES FOR AIRSTRIPS AND HELIPORTS AND REMOTE SITE AIRSTRIP:

- 2.1 Aviation Department is the proponent for all airstrip and heliport construction. As the proponent, the department must be included early in the planning and budget cycle of airstrips and heliports construction.
- 2.2 Aviation User Departments will prepare an estimate of their airstrip and heliport construction requirements during the annual budget cycle. The estimate for construction will be submitted to Aviation Department along with the User Department annual estimate of requirements for flying support hours, if appropriate. Upon agreement of airstrip and heliport construction requirements between Aviation User Department and Aviation Department, the construction requirements will be submitted to the construction agency for their acceptance and estimate of costs.
- 2.3 A decision is then made between Aviation User Department and the construction agency whether the construction cost will be budgeted in construction agency or Aviation User Net Direct Expenditure. The distribution of costs by account will be given to Aviation Department.
- 2.4 Costs for each airstrip and heliport will be accumulated in a Cost Center account established by Aviation for this purpose, namely 727-422 on each Maintenance Work Order (MWO).

** ADDITION NEW INSTRUCTION L. COMPLETE REVISION L.	* CHANGE	** ADDITION	NEW INSTRUCTION \square	COMPLETE REVISION \square
---	----------	-------------	---------------------------	-----------------------------

SAUDI ARABIAN OIL COMPANY (Saudi Aramco) **GI NUMBER** Approved **GENERAL INSTRUCTION MANUAL** 1305.000 **ISSUE DATE REPLACES** ISSUING ORG. AVIATION DEPARTMENT 09/15/2013 07/05/2017 **APPROVAL** PAGE NO. BUDGETING, CONSTRUCTION, APPROVAL AND **SUBJECT** MAA 2 OF 5 MAINTENANCE OF AIRSTRIPS AND HELIPORTS

3.0 CONSTRUCTION AND APPROVAL:

- 3.1 Aviation User Department will notify Aviation Department of the need for an airstrip or heliport by sending a letter to Aviation Department, Ground Support Operations Division (GSOD), Box 80, Dhahran. The letter will specify the type of airstrip or heliport with the approximate location by longitude and latitude and other details as appropriate. Aviation Department will issue a MWO with cost data entered as chargeable to 727-422 if an account from Aviation User Department is to be used.
- 3.2 The construction agency will create a MWO in SAP and send the MWO workflow to Aviation User and Aviation Department.
- 3.3 Aviation Ground Support Operations Division will arrange for a preliminary site selection visit with Aviation User Department, the construction agency, Facilities Planning Department if appropriate and Aviation Ground Support Operations Division representatives. A preliminary site inspection form, Attachment 1, will be used and copies given to all parties insuring agreement on airstrip specifications, including length, width, orientation, maximum gradients, clearways, lighting, markings, facilities, and other details using Standard Drawings as references. Aviation Ground Support Operations Division will issue marked up standard drawings to the construction agency at the time of the preliminary site selection visit, indicating thereon the agreed specifications. The marked-up drawings will have the appropriate MWO clearly marked for file reference purposes.
- 3.4 The construction agency will then proceed with the construction. GSOD will make site visits during the construction to insure specification compliance. Upon completion of construction, the construction agency will provide GSOD with a certification on the airstrip length, width and gradient at five hundred feet intervals along the runway edge and center line. This certification will be accomplished on the final acceptance inspection worksheet. Final "as built" drawings will be provided with each helipad and airstrip constructed at the final acceptance inspection.
- 3.5 Ground Support Operations Division will arrange for a separate survey of the airstrip or heliport according to the survey form attached for obstacle clearances.
- 3.6 Ground Support Operations Division will arrange for a final acceptance inspection visit along with all the parties who attended the initial site selection visit. The final acceptance inspection worksheet will be accomplished, signed by all and copies distributed.

4.0 MAINTENANCE OF AIRSTRIPS, HELIPORTS AND REMOTE SITE AIRSTRIPS:

4.1 Maintenance costs for airstrips and heliports will be accumulated under the type 727-422 account referenced above and cleared to an appropriate account by Saudi Aramco Form #SA-690 [Special Project (SP) Notice] in

** ADDITION NEW INSTRUCTION COMPLETE REVISION	CHANGE	** ADDITION	NEW INSTRUCTION \square	COMPLETE REVISION
---	--------	-------------	---------------------------	-------------------

SAUDI ARABIAN OIL COMPANY (Saudi Aramco) GI NUMBER Approved					
GENERAL INSTRUCTION MANUAL			1305	1305.000	
ISSUING ORG.	AVIATION DEPARTMENT		ISSUE DATE 07/05/2017	REPLACES 09/15/2013	
SUBJECT	BUDGETING, CONSTRUCTION, API MAINTENANCE OF AIRSTRIPS AND		APPROVAL MAA	PAGE NO. 3 OF 5	
	accordance with current budget preparation philosophies and agreements between Transportation & Equipment Services Department and Aviation Department for each budget cycle.				
4.2	Maintenance on airstrips in the eastern, western and other regions will normally be accomplished by Transportation & Equipment Services Department, upon approval of the work order in SAP workflow from the Aviation Department. Budgeting details will be coordinated between the two departments annually.				
4.3	Desert airstrips are an exception to the above procedure where Drilling & Workover Services Department/ Wellsites Division will construct Desert Airstrips at Drilling and Workover or Exploration working areas as required. Selection of sits and construction methods are to be approved by Aviation Department. For existing Desert Airstrips, Wellsites Division may only require to grade, water, and compact airstrips to bring them to usable conditions. After construction of new Desert Airstrips or renovating of existing ones, Aviation Department is to approve the airstrip for utilizations. Drilling & Workover Services Department will request Aviation Ground Support Operations Division representative to review the airstrip for approval.				
Approved					
Mohammad A. Abuhumoud Manager, Aviation Department Concur:					
Salleh A. AL-Maghlouth. Manager Exploration Operations Department					
Ali O. AL-Qarni, Manager Drilling & Workover Services Department					
Sultan. AL-Ghadery, Manager Transportation and Equipment Services Department					
* CHANGE	** ADDITION NI	EW INSTRUCTION □ CO	MPLETE REVI	SION 🗆	

SAUDI ARABIAN OIL COMPANY (Saudi Aramco) GI NUMBER Approved **GENERAL INSTRUCTION MANUAL** 1305.000 ISSUE DATE REPLACES ISSUING ORG. AVIATION DEPARTMENT 09/15/2013 07/05/2017 APPROVAL PAGE NO. BUDGETING, CONSTRUCTION, APPROVAL AND SUBJECT MAA 4 OF 5 MAINTENANCE OF AIRSTRIPS AND HELIPORTS ATTACHMENT 1 - AIRSTRIP AND HELIPORT APPROVAL FORM AIRSTRIP/HELIPORT APPROVAL FORM AIRSTRIP/HELIPORT NAME AIRSTRIP/HELIPORT COORDINATES N PERSON RESPONSIBLE FOR COORDINATION ACTIVITY SERVED: AND MAINTENANCE: DEPARTMENT DIVISION OR CAMP NAME PHONE PRELIMINARY SITE INSPECTION Attended by:(Name) ______ Date: _____ Acceptable: Exceptions Location: Length of Site: Vertical Clearances: Orientation: Surface: Slope: FINAL AIRSTRIP INSPECTION Attended by:(Name) _____ Date: ____ Meter Acceptable: _____Exceptions & ____ Strip Length: Meter Descriptions Width: _____ Degree Orientation: Surface: Vertical Clearances: Windsock & Markers: Strip Elevation: Slope: CAMP LOCATION: N _____ E _____ CAMP NAME CAMP RADIO CALL: RADIO FREQUENCY: ____ BEACON FREQUENCY AND IDENT. RADIAL & DISTANCE (BEACON TO AIRSTRIP) Survey request from attached _____ Approved for _____ aircraft. (TYPE) AVIATION REPRESENTATIVE * CHANGE NEW INSTRUCTION \square ** ADDITION COMPLETE REVISION

SAUDI ARABIAN OIL COMPANY (Saudi Aramco) GI NUMBER Approved **GENERAL INSTRUCTION MANUAL** 1305.000 ISSUE DATE REPLACES ISSUING ORG. AVIATION DEPARTMENT 09/15/2013 07/05/2017 APPROVAL PAGE NO. BUDGETING, CONSTRUCTION, APPROVAL AND **SUBJECT** MAA 5 OF 5 MAINTENANCE OF AIRSTRIPS AND HELIPORTS ATTACHMENT 2 - AIRSTRIP SURVEY FORM AIRSTRIP SURVEY FORM 1. Reference dimensions to Saudi Aramco Drawing AA-036257 (Permanent Airstrip) / AA-036783 (Temporary Airstrip) 2. Specifics: Date of survey information _____ a) Runway name Runway location (longitude/latitude) c) Length _____ (meter). d) Width _____ (meter). e) Elevation _____ (meter). f) Mag heading of runway _____ g) Surface composition h) i) Turnarounds (if any) Windsock positions from R/W centerline and ends _____ i) Provide the following information: a) Obstructions within 6km radius from runway center. 1. Coordinates (UTM) and elevation of obstacles in meter. Ground elevation of each obstacle in meter. b) Obstructions in the airplane approach/departure path. The obstacles above 1.5% gradients for a distance of 15km. c) Profile of runway showing the elevation changes throughout the length (every 150 meters). d) Loading ramp details. e) Fence details. f) Overrun or clearway details. SUPERVISOR/SURVEYOR Certifying the above information

* CHANGE ** ADDITION NEW INSTRUCTION \square COMPLETE REVISION \square