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AMENDMENT NR 1/24

11 JAN 2024

AIRAC

AIP AMENDMENT NR 1/24

(Effective : 1600UTC 21 FEB 2024)

1. SIGNIFICANT INFORMATION AND CHANGES

1.1 Enroute

a) Information of surveillance radar(15 → 16), figure for ARSR and ADS-B coverage, figure numbers(figure 1.3 → 1, 2).

1.2 Jeju INTL Airport

a) Establishment of rolling take-off for runway operating system and Information of item number.

1.3 Cheongju INTL Airport

a) Amended WX minimum.

2. PAGE CONTROL

OLD (Pages to be removed)	NEW (Pages to be inserted)
VOL I, Part II - ENR (Enroute) ENR 1.6-1(9 APR 20) / 1.6-2(9 APR 20)	VOL I, Part II - ENR (Enroute) ENR 1.6-1(11 JAN 24) / 1.6-2(11 JAN 24)
VOL II, Part III - AD (Aerodrome) RKPC AD 2-15(14 DEC 23) / 2-16(14 DEC 23) RKTU AD 2-8-9(16 NOV 23) / 2-8-10(16 NOV 23)	VOL II, Part III - AD (Aerodrome) RKPC AD 2-15(14 DEC 23) / 2-16(11 JAN 24) RKTU AD 2-8-9(16 NOV 23) / 2-8-10(11 JAN 24)

END

ENR 1.6 ATC SURVEILLANCE

1. 일반사항

1.1 레이더/ADS-B시설은 운영제한사항을 벗어나지 않는 한, 가능한 최대 범위 내에서 항공기에게 레이더/ADS-B 업무를 제공한다. 레이더/ADS-B 업무는 레이더 포착범위, 관제사업무량, 장비성능 등 여러 요소에 의하여 영향을 받으며, 상황에 따라서 레이더/ADS-B 업무의 제공여부를 레이더 관제사가 결정할 수 있다.

1.2 대구/인천ACC는 전 인천비행정보구역을 포착범위로 하는 16개 감시레이더 및 11개 ADS-B 무선국을 이용하여 레이더/ADS-B 관제업무를 수행하고 있다

1.3 ADS-B는 위치정보를 정확히 항공교통관제에 전달하기 위해 GNSS와 항공기내 전자장비를 사용한다. 다음과 같은 감항성 증명 요구사항을 만족하는 경우에, 1090 MHz 확장스쿼터(1090 ES)를 이용하여 위치정보를 전송하는 모든 항공기는 감시업무를 제공받는다.

- a. European Aviation Safety Agency(EASA) AMC 20-24; or
- b. European Aviation Safety Agency(EASA) CS ACNS; or
- c. Federal Aviation Safety(FAA) Title 14 Code of Federal Regulations(14 CFR) section91.227 or AC No. 20-165A(or replacement)-Airworthiness Approval of ADS-B; or
- d. Configuration standards reflected in Appendix XI of Civil Aviation Order 20.18 of the Civil Aviation Safety Authority of Australia.

위의 요구사항을 충족시킬 수 없는 ADS-B OUT 시스템은 항공기가 하나 또는 그 이상의 감시 정확도와 무결성(NUCp, NIC, NAC of SIL)을 0값으로 송신하지 않는 한, ADS-B 송신을 중단해야한다.

ICAO 비행계획서 7번 항목의 항공기 식별부호 형식인 Flight ID는 항공기가 감시업무를 제공받기 위하여 트랜스ponder 또는 비행관리시스템(FMS)에 입력되어야한다. 항공사는 2자리의 IATA 코드가 아닌 3자리의 ICAO 항공기 코드를 사용한다. 또한, ICAO 비행계획서 상 항목 10번은 ADS-B 사용가능여부를 나타낸다. 인천 FIR 내 레이더 및 ADS-B 도달범위 지도는 그림 1, 2와 같다.

1. General

1.1 A radar/ADS-B unit normally provides radar service to aircraft, to the maximum extent practicable, to meet the operational requirement. Many factors, such as radar/ADS-B coverage, controller workload and equipment capabilities, may affect these services, and the radar controller shall determine the practicability of providing or continuing to provide radar/ADS-B services in any specific case.

1.2 Daegu/Incheon ACC provide radar/ADS-B control service using 16 surveillance radar and 11 ADS-B stations which cover Incheon FIR.

1.3 Automatic Dependent Surveillance-Broadcast(ADS-B) utilizes global navigation satellite system(GNSS) and aircraft avionics to accurately relay flight information to air traffic services. All aircraft that emit position information using a 1090 MHz extended squitter(1090 ES) may be provided surveillance services, provided they meet the airworthiness compliance requirements defined in:

- a. European Aviation Safety Agency(EASA) AMC 20-24; or
- b. European Aviation Safety Agency(EASA) CS ACNS; or
- c. Federal Aviation Safety(FAA) Title 14 Code of Federal Regulations(14 CFR) section91.227 or AC No. 20-165A(or replacement)-Airworthiness Approval of ADS-B; or
- d. Configuration standards reflected in Appendix XI of Civil Aviation Order 20.18 of the Civil Aviation Safety Authority of Australia.

ADS-B Out systems that are unable to meet the above requirements must disable ADS-B transmission unless the aircraft always transmits a value of 0(zero) for one or more of the position quality indicators(NUCp, NIC, NAC of SIL).

A Flight ID that is an exact replica of the Aircraft identification entered field 7 of the ICAO Flight Plan must be programmed into the transponder or Flight management system(FMS) in order to receive surveillance services. Airlines aircraft will use the three-letter ICAO airline code, not the two-letter IATA code. In addition, field 10 should indicate ADS-B capability on the ICAO Flight Plan. For a map of ARSR and ADS-B coverage in Incheon FIR, see Figure 1 and 2.

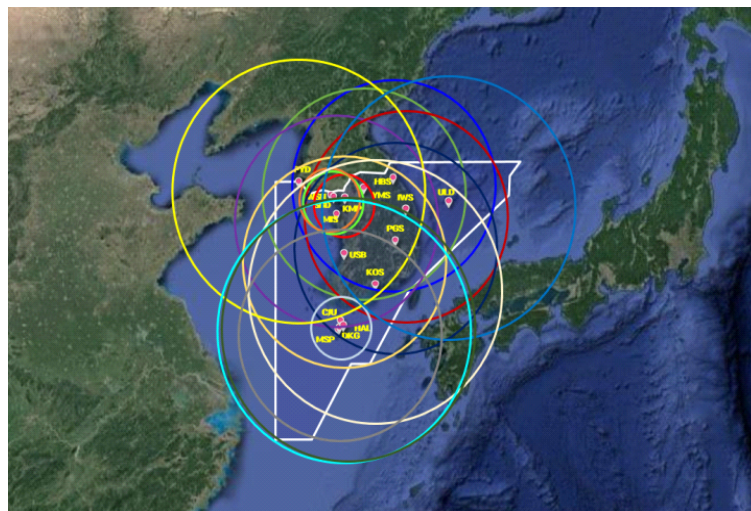


그림 1 레이더 도달범위 / Figure 1 ARSR coverage

Change : Information of surveillance radar(15 → 16), figure for ARSR coverage and figure numbers(figure 1.3 → 1 and 2).

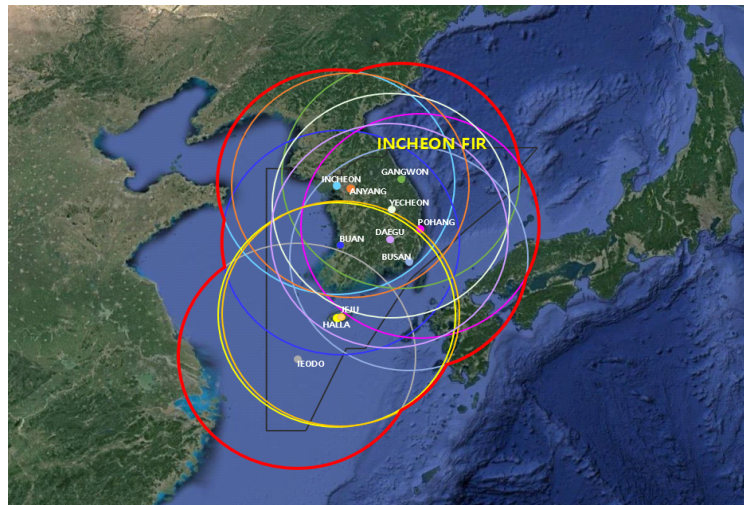


그림 2 ADS-B 도달범위 / Figure 2 ADS-B coverage

2. 레이더/ADS-B 관제업무의 제공

2.1 레이더/ADS-B 식별은 국토교통부 발행 항공교통관제절차를 적용한다.

2.2 관제공역을 비행하는 항공기에게는 모든 접근관제구역에서 레이더 관제업무가 제공되며, 항공로에서는 레이더/ADS-B 관제업무가 제공된다.
제공업무는 다음과 같다.

- 출발, 도착 및 항공로상 항공기의 레이더 분리
- 출발, 도착 및 항공로상 항공기의 비행경로 이탈 정보 제공
- 레이더/ADS-B 유도
- 비상항공기에 대한 지원
- 관제공역 통과항공기에 대한 지원
- 위험을 초래할 수 있다고 판단되는 다른 항공기에 대한 위치정보 및 경고
- 항공기 항법 보조

2.3 최소 수평레이더 분리기준은 국토교통부 발행 항공교통관제절차에 따른다.

2.4 레이더관제사가 조종사에게 지정한 고도는 비행구간에 따른 최저안전고도를 고려하여 제공할 것이다.

3. 기타 정보 및 절차

3.1 레이더/ADS-B 고장

레이더 식별불능 또는 레이더 고장상황이 발생한 경우에는 ADS-B 감시업무가 제공되며, 레이더 및 ADS-B 동시 고장상황이 발생한 경우에는 비레이더 표준분리가 적용된다.

3.2 무선통신 두절

만약 항공기의 무선통신이 두절되었다면 조종사는 무선송신기를 MODE 3/A, CODE 7600에 맞추어야 한다. 항공기의 무선수신상태를 확인하기 위하여 레이더 관제사가 항공기의 기수변경을 지시할 것이다. 만약 레이더 관제사가 지시한 항공기의 기동을 확인하였다면, 항공기에게 계속적으로 레이더 업무를 제공할 것이다. 만약 항공기의 통신이 송수신 모두 두절되었다면 조종사는 ICAO 규정에 의거한 무선통신 두절절차를 수행하여야 한다. 무선통신두절 전에 레이더 식별이 이루어졌다면 레이더 관제사는 다른 식별된 항공기를 레이더 유도하여 통신두절 항공기의 비행경로를 보호할 것이다.

2. The application of radar/ADS-B control service

2.1 Radar/ADS-B identification is achieved according to the Standard Air Traffic Control Procedures specified by the MOLIT.

2.2 Radar control service is provided in controlled airspace to aircraft operating within all TMA and radar/ADS-B control service is provided along all AWYs.

This service may include:

- Radar separation of arriving, departing and en-route traffic;
- Radar monitor of arriving, departing and en-route traffic to provide information on any significant deviation from the normal flight path;
- Radar/ADS-B vector when required;
- Assistance to aircraft in emergency;
- Assistance to aircraft crossing controlled airspace;
- Warnings and position information on other aircraft considered to constitute a hazard;
- Information to assist in the navigation of aircraft

2.3 The minimum horizontal radar separations are provided in accordance with the Standard Air Traffic Control Procedures specified by the MOLIT. :

2.4 Levels assigned by the radar controller to pilots will provide a minimum terrain clearance according to the phase of flight.

3. Other relevant information and procedures

3.1 Radar/ADS-B failure

In the event of radar failure or loss of radar identification, ADS-B surveillance would be provided, and in the event of radar/ADS-B simultaneous failure, instructions will be issued to restore non-radar standard separation.

3.2 Radio failure

In the event of an aircraft radio failure, a pilot shall select Mode 3/A, Code 7600.
The radar controller will establish whether the aircraft radio receiver is working by instructing the pilot to carry out a turn or turns. If the turns are observed, the radar controller will continue to provide radar service to the aircraft. If the aircraft's radio is completely unserviceable, the pilot should carry out the procedures for radio failure in accordance with ICAO provisions. If radar identification has already been established, the radar controller will vector other identified aircraft clear of its track.

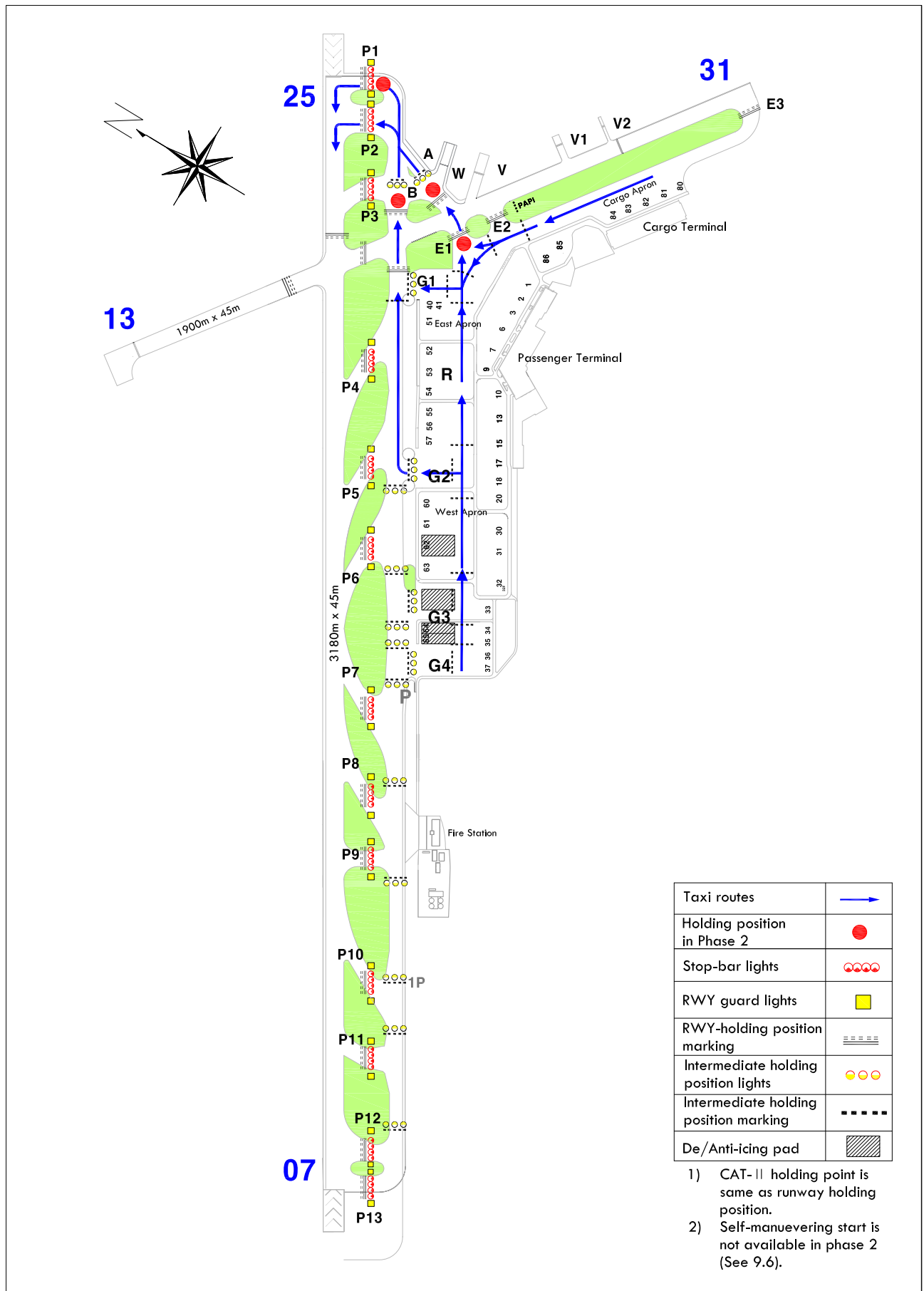
Change : Information of figure for ADS-B coverage and figure number (figure 1.3 → 2).

LOW
VISIBILITY
PROCEDURE

AERODROME ELEV 36 m

TWR 118.2 236.6
GND 121.675

JEJU/Intl(RKPC)
RWY 25
SMGCS - Departure taxi route



RKPC AD 2.21 NOISE ABATEMENT PROCEDURES

1. Aircraft Operating Procedures(Except helicopter)
 - 1.1 Take off

All departing aircraft should apply ICAO PANS-OPS(Doc.8168) Volume III Noise Abatement Departure Procedure One(NADP One).

 - Thrust Reduction at 1 500 ft above Aerodrome Elevation is recommended.
 - Whenever practicable, all departing aircrafts should climb with their certified maximum climb gradient until reaching 3 000 ft AGL.
 - 1.2 Approach

Regarding noise abatement using a delayed/reduced flap, setting landing procedure is recommended.

 - After intercepting localizer course, lower gear.
 - Maintain an intermediate flap until FAF.
 - At FAF, set a flap for landing.
 - 1.3 Visual Approach RWY 07

All arriving aircrafts shall align with the final approach course outside YDM 6 DME.
 - 1.4 Exempted cases
 1. Aircrafts don't need comply with the procedures described in paragraph 1.1 and 1.2 above when they are in adverse operating conditions such as;
 - If the runway is not clear and dry. i.e. It is adversely affected by snow, slush, ice, water or other substances.
 - In conditions when the ceiling is lower than 500 ft, or when the horizontal visibility is less than 1 900 m.
 - When the cross-wind component, including gusts, exceeds 15 kt.
 - When the tailwind component, including gusts, exceeds 5 kt.
 - When the wind shear has been reported or forecast, or thunderstorms are expected to affect the approach.
 2. Aircraft unable to comply with the procedures described in paragraph 1.1 and 1.2 above for any reason shall inform ATC.
 - 1.5 Runway Operating System
 1. RWY 07 intersection take-off is recommended except in unavoidable cases for traffic flow or other reasons. RWY 07 intersection departing aircraft should enter the runway via TWY P9, P11 or P12 after receiving line-up clearance.
 2. When receiving the take-off clearance from the ATC during taxiing into the runway, it is recommended for the pilot to taxi immediately into it and begin its take-off roll without stopping the A/C except for the following conditions.
 - a. The low visibility procedure in operations
 - b. The runway contaminated by water, ice, snow, slush or other substances
 - c. Any other abnormal condition of aircraft, airport or ATC system
 - d. The cross-wind component including gust exceeding 15 kt, or
 - e. The tail-wind component including gust exceeding 5 kt
 - f. Aircraft classified as a "super" or "heavy" in aircraft classes
 - g. Otherwise instructed by the ATC
 3. RWY 31 is recommended for departure during winter season to the aircraft which wing span is less than 36 m aircraft.
 - 1.6 Operational Limitations
 1. During landing, reverse thrust other than idle thrust can not be used except for safety reasons.
 2. Engine start is permitted in the ramp areas only. However, the power setting(s) shall not exceed idle thrust.

Change : Establishment of rolling take-off for runway operating system and Information of item number.

RKTU AD 2.21 NOISE ABATEMENT PROCEDURES

NIL

RKTU AD 2.22 FLIGHT PROCEDURES

1. IFR

1.1 Take-off Weather Minima

RWY 06L/24R		
ENG	HIRL & RCLL or RCL	Others
2 or more ENG	RVR / VIS 500 m	RVR / VIS 800 m

1.2 Radar Procedure

1.2.1 ASR Approach

a. Pilot should request to the approach control to use ASR approach, then radar vector will be provided till the MAPt (1/2 mile) or to the point at which you can proceed visually to the airport.

b. Controller will provide MDA, course and distance from touchdown by using PAR equipment.

1.2.1.1 Weather minimum

a. 06L/24R

	RWY	CAT	DH/MDA-VIS	CEIL-VIS	
S-ASR	06L	AB	900/24	(800-½)	
		CDE	900-1⅝	(800-1⅝)	
	ALS INOP CAT AB VIS 1 mile (RVR 5 500 ft), CDE VIS 2 mile				
	24R	AB	860/24	(700-½)	
		C	860-1½	(700-1½)	
		D	860-1¾	(700-1¾)	
		E	860-2	(700-2)	
	ALS INOP increase VIS ½ mile				
	CIRCLING	06L	AB	900-1	(800-1)
			C	1 400-3	(1 300-3)
DE			2 000-3	(1 900-3)	
24R		AB	860-1	(700-1)	
		C	860-2	(700-2)	
		D	1 200-3	(1 100-3)	
		E	1 220-3	(1 100-3)	
Circling not AUTH SE of RWY 06-24, RWY 24-06					

b. 06R/24L

	RWY	CAT	DH/MDA-VIS	CEIL-VIS
S-ASR	06R	AB	900/40	(800-¾)
		CDE	900-1¾	(800-1¾)
	ALS INOP CAT AB VIS 1 mile (RVR 5 500 ft), CDE VIS 2 mile			
	24L	AB	880/40	(700-¾)
		C	880-1½	(700-1½)
		D	880-1¾	(700-1¾)
		E	880-2	(700-2)
	ALS INOP CAT AB increase VIS ¼ mile , CDE increase VIS ½ mile.			
CIRCLING	06R	AB	900-1	(800-1)
		C	1 400-3	(1 300-3)
		DE	2 000-3	(1 900-3)
	24L	AB	880-1	(700-1)
		C	880-2	(700-2)
		D	1 200-3	(1 100-3)
		E	1 220-3	(1 100-3)
	Circling not AUTH SE of RWY 06-24, RWY 24-06			

1.2.2 PAR Approach

- a. PAR approach for practice is not available.
PAR approach is only available in situation of ILS malfunctioning.

1.2.2.1 Weather minimum

a. 06L/24R

RWY	CAT	GS/TCH(ft)/RPI(ft)	ALS	DA/VIS	HAT	CEIL-VIS
06L	ABCDE	3.0°/50/954	FULL	368/24	200	(200-½)
			INOP	368/40	200	(200-¾)
24R	ABCDE	3.0°/50/995	FULL	386/24	200	(200-½)
			INOP	386/40	200	(200-¾)

b. 06R/24L

RWY	CAT	GS/TCH(ft)/RPI(ft)	ALS	DA/VIS	HAT	CEIL-VIS
06R	ABCDE	3.0°/50/1 002	FULL	372/40	200	(200-¾)
			INOP	372/40	200	(200-¾)
24L	ABCDE	3.0°/50/1 001	FULL	392/24	200	(200-½)
			INOP	392/40	200	(200-¾)

1.3 Missed APCH Procedures

- a. RWY 06 : Climb heading 061° to 6 000 ft and expect radar vector by ATC.
Missed APCH climb rate exceed 360(ASR), 380(PAR) ft/NM.
- b. RWY 24 : Climb to 6 000 ft via heading 240° to 3 NM(from ASR) then right heading 250°.
Missed APCH climb rate exceed 380 ft/NM.

Change : Amended WX minimum.