ENR 3.3.2 其它规定

ENR 3.3.2.1 南中国海地区实施修改的 ATS 航路结构及 RNP 10 运行

ENR 3.3.2 Other Rules

ENR 3.3.2.1 Implementation of a revised ATS route structure and RNP 10 operations in the South China Sea area

1. RNP10 导航要求

- 1.1 在三亚飞行情报区的以下航段上,实施修改的 RNP10 运行。其它航路不需要采用 RNP10。
- L642: EPKAL 至 EXOTO M771: N14° 34.0′ E111° 55.5′ 至 DONDA 至 DOSUT N892 MIGUG 至 MONBO (60 海里侧向间隔标准)
- 1.2 飞行员必须将低于 RNP10 导航要求的导航设备性能的降低或故障情况通报 ATC部门。ATC部门随后应提供备用间隔及/或备份航路。
- 1.3 符合 RNP10 要求航空器的飞行员必须在 ICAO 飞行计划第 10 项注明 /R。

1. RNP 10 navigation requirements

1.1 RNP 10 operations will be implemented on those segments of the following routes, which fall within the Sanya FIR. For other routes RNP10 approval is not required.

L642: EPKAL to EXOTO

M771: N14° 34.0′ E111° 55.5′ to DONDA to DOSUT N892: MIGUG to MONBO (60NM lateral separation minima)

- 1.2 Pilots must advise ATC of any deterioration or failure of the navigation systems below the navigation requirements for RNP 10. ATC shall then provide alternative separation and/or alternative routing.
- 1.3 Pilots of aircraft meeting RNP 10 requirements must indicate/R at Item 10 of the ICAO Flight Plan.

2. 不符合 RNP10 要求的航空器的飞行

- 2.1 不能满足第 1.1 款最低导航要求的航空器必须提交飞行计划,在 FL280 或以下飞行。根据第 2.3 款规定,此类航空器在 FL280 以上的飞行需事先经 ATC 部门许可。
- 2.2 希望沿第 1.1 款规定的 ATS 航路,在 FL290 或以上飞行的航空器的飞行员必须在 ICAO 飞行计划第 18 项 "RMK/REQ FL/要求的高度(插入高度)"注明高度要求。在优先选择的高度上飞行需经 ATC 协调和许可。未被批准沿上述高度飞行的航空器,需在 FL280或以下飞行或沿备份航路飞行。
- 2.3 收到非 RNP10 航空器申请沿第 1.1 款规定的 ATS 航路,在 FL290 或以上飞行的 ATC 部门应与受此飞行影响的相邻 ATC 部门进行协调。在决定是否批准该飞行时,各 ATC 部门应对以下因素进行考虑:
- a. 交通密度:
- b. 通信,包括正常情况下通信设备的不可用性;
- c. 航路天气情况; 及
- d. 当时的其它有关因素。

2. Operations by aircraft not meeting RNP 10

- 2.1 An aircraft that is unable to meet the minimum navigation requirements described in section 1.1 above must file flight plan at FL280 or below. Operations above FL280 for these aircraft will be subject to ATC approval, in accordance with the provisions of section 2.3.
- 2.2 Pilots of such aircraft wishing to operate on ATS routes specified in paragraph 1.1, at or above FL290, must indicate their level requirements at Item 18 of the ICAO Flight plan as RMK/REQ FL(insert level). Approval to operate at the preferred level will be subject to ATC co-ordination and clearance. Flights that are not approved will be required to operate at FL280 or below or via alternative routes.
- 2.3 ATC units receiving a request for a non-RNP 10 approved aircraft to operate on ATS routes specified in paragraph 1.1, at or above FL290, will co-ordinate with adjacent ATC units affected by the flight. In deciding whether or not to approve the flight, each ATC unit will take into consideration:
- a. Traffic density;
- b. Communications, including the non-availability of normal communications facilities:
- c. Weather conditions en-route; and
- d. Any other factors pertinent at the time.

3. 安全评估标准

3. Safety assessment criteria

3.1 根据 RNP10 导航性能要求确定, 航空器导航性能要求的侧向偏航标准应小于 8.7 公里 (4.7 海里)。

3.1 The safety criteria in accordance with the requirements for RNP 10 navigation performance, aircraft navigation performance shall be such that the standard deviation of lateral track errors shall be less than 8.7km(4.7NM).

4. 航空器导航性能监测

4.1 航空器导航性能监测是营运人、注册国或营运人 所在国(如可能)、制定规章机构及 ATS 提供者的共 同责任。对不符合以下导航要求参数的检测和报告将 主要依靠 ATC 部门的雷达监控获得:

侧向偏离:根据雷达监控偏离航迹中心线 15 海里或更远;

纵向偏离:

- a. 在 ATC 部门采用时间间隔的情况下, 当 ATC 部门证实飞行员预计的报告时间间隔与在报告点预测的时间间隔相差 3 分钟或更长时,即产生纵向偏离;
- b. 在 ATC 部门采用距离间隔标准的情况下,当 ADS、或雷达监控或 RNAV 距离报告测得的距离与预测距离相差 10 海里或以上时,即产生纵向偏离。
- 4.2 当 ATC 部门监控到偏航时,应通报机长并采用要求的检查程序。
- 4.3 ATC 当局应与航空器营运人、注册国或营运人所在国 (如可能)一起对偏航原因进行调查。

5. 间隔标准

- 5.1 侧向间隔标准
- 5.1.1 当按照第 1.1 款规定配备机载设备的航空器在FL290 或以上飞行时,沿 L642、M771 飞行的航空器之间可采用 50 海里侧向间隔标准,沿 N892 飞行的航空器之间只可采用 60 海里侧向间隔标准
- 5.1.2 当不符合第 1.1 款要求的航空器被允许沿第 1.1 款所示航路在 FL290 或以上飞行时,应与在相邻航线上飞行的航空器之间采用垂直间隔。
- 5.2 纵向间隔
- 5.2.1 沿 L642、 M771 飞行的航空器之间可采用 50 海里间隔标准,沿 N892 飞行的航空器之间可采用 80 海里 RNAV 或 10 分钟(或更小)马赫数技术(MNT)间隔标准。
- 5.3 垂直间隔
- 5.3.1 沿第 1.1 款所示 ATS 航路在 FL290 或以上飞行的航空器之间应采用 2 000 英尺的垂直间隔标准。

4. Monitoring of aircraft navigation performance

4.1 Monitoring of aircraft navigation performance is a joint responsibility among operators, States of Registry or States of Operators (as applicable), regulatory authorities and the ATS providers. The detection and reporting of non-conformance with the navigation requirements against the following parameters will rely primarily on radar monitoring by ATC units:

Lateral deviations: a deviation of 15NM or more from track centerline based on radar observations;

Longitudinal deviations:

- a. where time separation is being applied by ATC-when the reported separation based on ATC verified pilot estimates varies by 3 minutes or more from the expected separation at the reporting point; or
- b. Where a distance based standard is being applied by ATC based on either ADS, radar observation of RNAV distance reports-when the distance varies by 10NM or more from the expected distance.
- 4.2 ATC will advise the pilot in command when such deviations are observed and implement the required investigation procedures.
- 4.3 The ATC authority will investigate the causes of such deviations in conjunction with the aircraft operator and the State of Registry, or the State of the Operator, as applicable.

5. Separation minima

- 5.1 Lateral Separation Minima
- 5.1.1 When operating at FL290 or above, between aircrafts equipped in accordance with the provisions of paragraph 1.1, a lateral separation minima of 50NM may be applied on L642, M771, a lateral separation minima of 60NM may only be applied on N892.
- 5.1.2 When an aircraft not meeting the requirements of paragraph 1.1 is approved to operate at or above FL290, on the routes shown in paragraph1.1, vertical separation shall be applied with aircraft operating on adjacent routes.
- 5.2 Longitudinal Separation
- 5.2.1 50NM separation minima may be applied between aircrafts on L642, M771, 80NM RNAV or 10 minutes (or less) Mach number technique (MNT) separation minima may be applied between aircrafts on N892.
- 5.3 Vertical Separation
- 5.3.1 A vertical separation minima of 2 000FT will be applied between aircraft operating at FL290 or above, on the ATS routes shown in paragraph 1.1.

6. 营运人规定

6.1 根据 RNP10 要求, 营运人应保证提供空中运行程序、机组手册和培训计划。

7. 应急程序 (包括危险天气避让)

- 7.1 应急程序,包括危险天气避让应按照以下具体规定执行。
- 7.2 当航空器在三亚飞行情报区岛内管制空域飞行时,飞行员在采取任何偏航行动前必须获得 ATC 许可.
- 7.3 如果航空器不能按照 ATC 许可继续飞行时,如可能,飞行员应在采取行动前用适当的 R/T 频率上发送紧急遇险信号,重新获得新的许可。
- 7.4 当航空器在三亚飞行情报区洋区管制空域飞行且 不能继续沿 ATC 指令飞行时,但能建立管制员 - 飞行 员通信,管制员应:
- a. 如可能, 建立标准的间隔;
- b. 如不可能,向所有有关航空器提供必要的交通信息,且可为解决此问题提供咨询信息,包括采用缩小的垂直间隔。
- 7.5 当航空器在三亚飞行情报区洋区管制空域飞行,不能继续沿 ATC 指令飞行,且无法建立管制员-飞行员通信时,飞行员应按照 ICAO 地区补充程序(7030)MID/Asia/RAC-4,第2.2.4段中的规定执行。

6. Operators procedures

6.1 The operator shall ensure in-flight procedures, crew manuals and training programmers are established in accordance with RNP 10 requirements.

7. Contingency procedures (including weather deviation)

- 7.1 Contingency procedures, including weather deviation, shall be in accordance with the provisions detailed below.
- 7.2 When an aircraft is flying in island controlled airspace in the Sanya FIR, the pilot shall obtain the ATC clearance before initiating any deviation action.
- 7.3 If an aircraft is unable to continue flight in accordance with its ATC clearance, the pilot shall, whenever possible, obtain a revised clearance prior to initiating any action by making a distress of urgency transmission on the appropriate R/T frequency.
- 7.4 When an aircraft is flying in oceanic controlled airspace in the Sanya FIR, and unable to continue flight in accordance with its ATC clearance and controller-pilot communications are established, the controller shall:
- a. if possible, establish standard separation;
- b. If this is not possible, provide essential traffic information to all aircraft affected and may provide advice to resolve the situation, including the use of reduced vertical separation.
- 7.5 If in the event that a pilot is flying in oceanic controlled airspace in the Sanya FIR, and unable to continue flight in accordance with its ATC clearance and pilot-controller communications are not established, the pilot shall comply with the ICAO Regional Supplementary Procedures (7030) MID/Asia/RAC-4, PARA 2.2.4.