



**THE FORTY-EIGHTH MEETING OF THE
INFORMAL PACIFIC ATC COORDINATING GROUP
(IPACG/48)**

FAA Northwest Mountain Regional Office - Des Moines, Washington
September 25 - 28, 2023

Agenda Item 5: Air Traffic Management (ATM) Issues

NOPAC Phase 2 Route Structure in Fukuoka FIR

(Presented by JCAB)

SUMMARY

This paper presents the route structure, direction and waypoint names of M523, which is planned to be established between R220 and R580 within Fukuoka FIR, and the route structure of relevant RNAV5 routes being established in the continental airspace, after Phase 2 implementation for the project of NOPAC Redesign.

1. Introduction

1.1. The Federal Aviation Administration (FAA) and the Japan Civil Aviation Bureau (JCAB) have been considering and discussing the project for redesign of the North Pacific (NOPAC) route, which is called “NOPAC Redesign” through the meeting of the Informal Pacific Air Traffic Control (ATC) Coordinating Group (IPACG).

1.2. In March 2021, FAA and JCAB agreed by consideration and discussion based on exchanging emails that the name of the new route was “M523,” which would be established between existing R220 and R580 in Phase 2 and all waypoint names for M523 would start with the letter “H.”

1.3. It was agreed tentatively that the transition date of Phase 2 for NOPAC Redesign was on January 25, 2024, at the Twenty-Eighth Providers Meeting of IPACG (IPACG PM/28) held at the Oakland Air Route Traffic Control Center (ARTCC) in December 2022.

1.4. JCAB started consideration and discussion on establishing routes in the continental airspace (hereinafter “continental routes”) and transition points between oceanic and continental routes with the Air Traffic Management Center (ATMC) and relevant Area Control Centers (ACCs) in earnest after the IPACG PM/28 meeting.

2. Discussion

2.1. **Figure 1** shows the route structure and directions for NOPAC within the Fukuoka Flight Information Region (FIR) after Phase 2 implementation of NOPAC redesign.

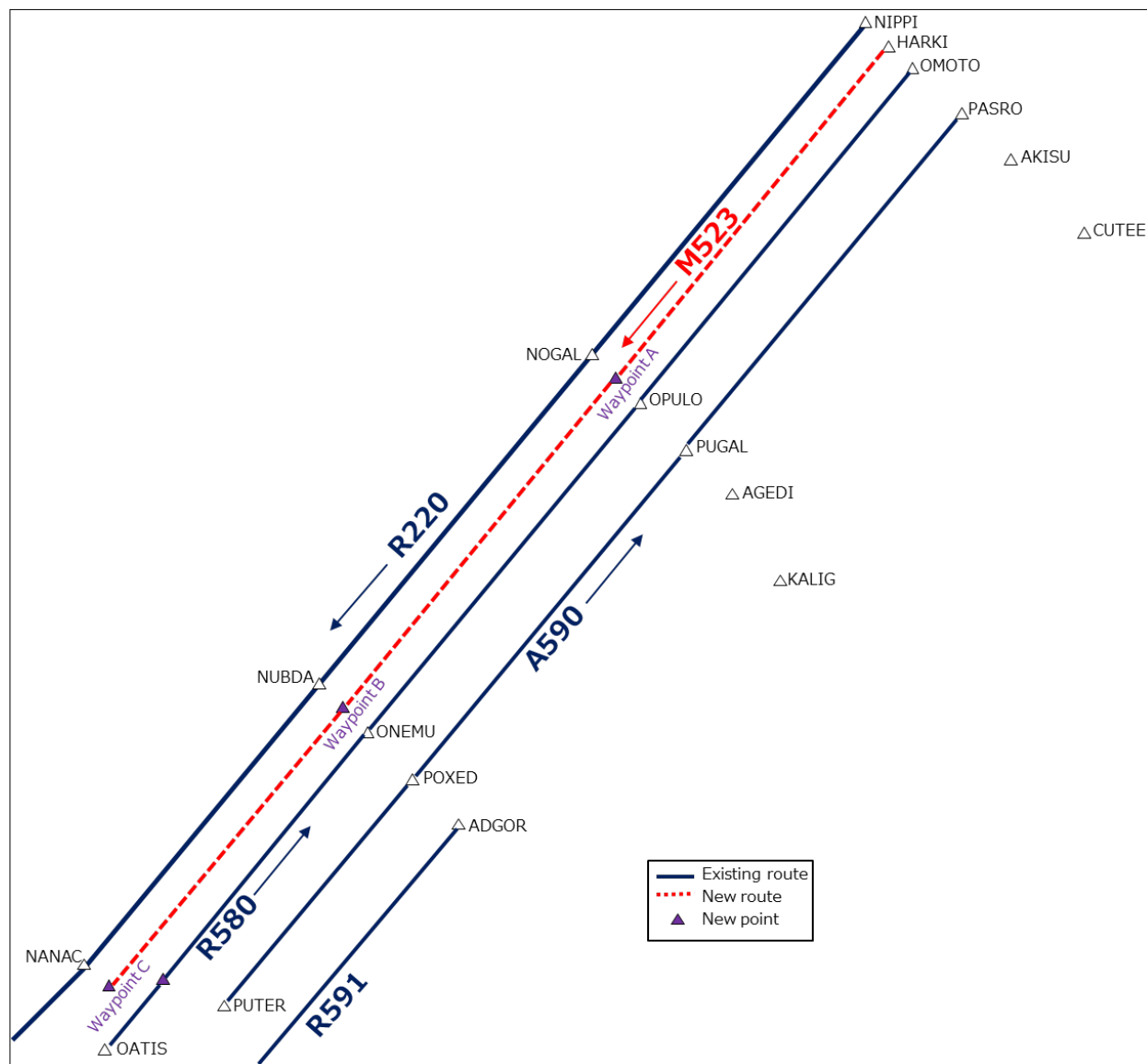


Figure 1: NOPAC route structure and directions within Fukuoka FIR after Phase 2

2.2. In Phase 2, M523, which is allowed for aircraft that are approved RNP4 and the Performance Based Communications and Surveillance (PBCS) and for westbound flights, is established as an RNP4 route between R220 and R580, and the altitude stratum of M523 will be limited between flight level (FL) 340 and FL400.

2.3. Additionally, the direction of R580 is changed to eastward from westward in Phase 2.

2.4. There will be three new waypoints on M523 within Fukuoka FIR. Thus, JCAB tried to select the waypoint names on M523 on the International Civil Aviation Organization (ICAO) International Codes and Routes Designators (ICARD) system. However, there was only one Five Letter Name Code (5LNC) for waypoints whose initial letter was “H” in May 2023.

2.5. JCAB patiently negotiated with the ICAO Asia Pacific (APAC) Regional Office so as to allocate waypoints starting with the letter “H” to the APAC region. In response to JCAB, ICAO APAC commented on the following.

- The available 5LNCs were divided between all the ICAO regions when 5LNCs were introduced in the mid-1970s and each Region has a ‘pool’ of codes allocated to it.
- The pools of codes (5LNCs starting with a particular alphabet are assigned to a particular region) were distributed equally across the various ICAO regions to ensure no duplication
- Currently, 5LNCs starting with the letter "H" are reserved for EUR/NAT and FAA regions, and they are not available to the APAC States/Administrations such as Japan.
- Consequently, ICAO APAC is unable to allocate "H" codes to Japan.

2.6. As a result of the above discussion, JCAB determined that the names of three waypoints, Waypoint A, B and C in **Figure 2**, on M523 in Fukuoka FIR start with the letter “I.” It means that the waypoints starting from “I” in NOPAC of Fukuoka FIR are the next and beyond waypoints starting from “H,” such as HARKI in Anchorage Oceanic FIR.

2.7. It would be easier for aircraft operators/pilots to identify the waypoints starting with the letter “I” as waypoints on M523 in Fukuoka FIR, and it enables the operators/pilots to prevent flight route errors on their flight plans and airborne equipment.

2.8. The waypoint names on M523 in Fukuoka FIR will be determined in October 2023 and published in the Aeronautical Information Publication (AIP) in November 2023.

2.9. **Figure 2** shows the route structure of continental routes after Phase 2 implementation. As a result of consideration with relevant ATC units, a total of four new RNAV5 routes will be established. Route 1 is from the connecting waypoint of M523 to the arrival route for the Tokyo Haneda International Airport (RJTT), and Route 2 is for Tokyo Narita Airport (RJAA).

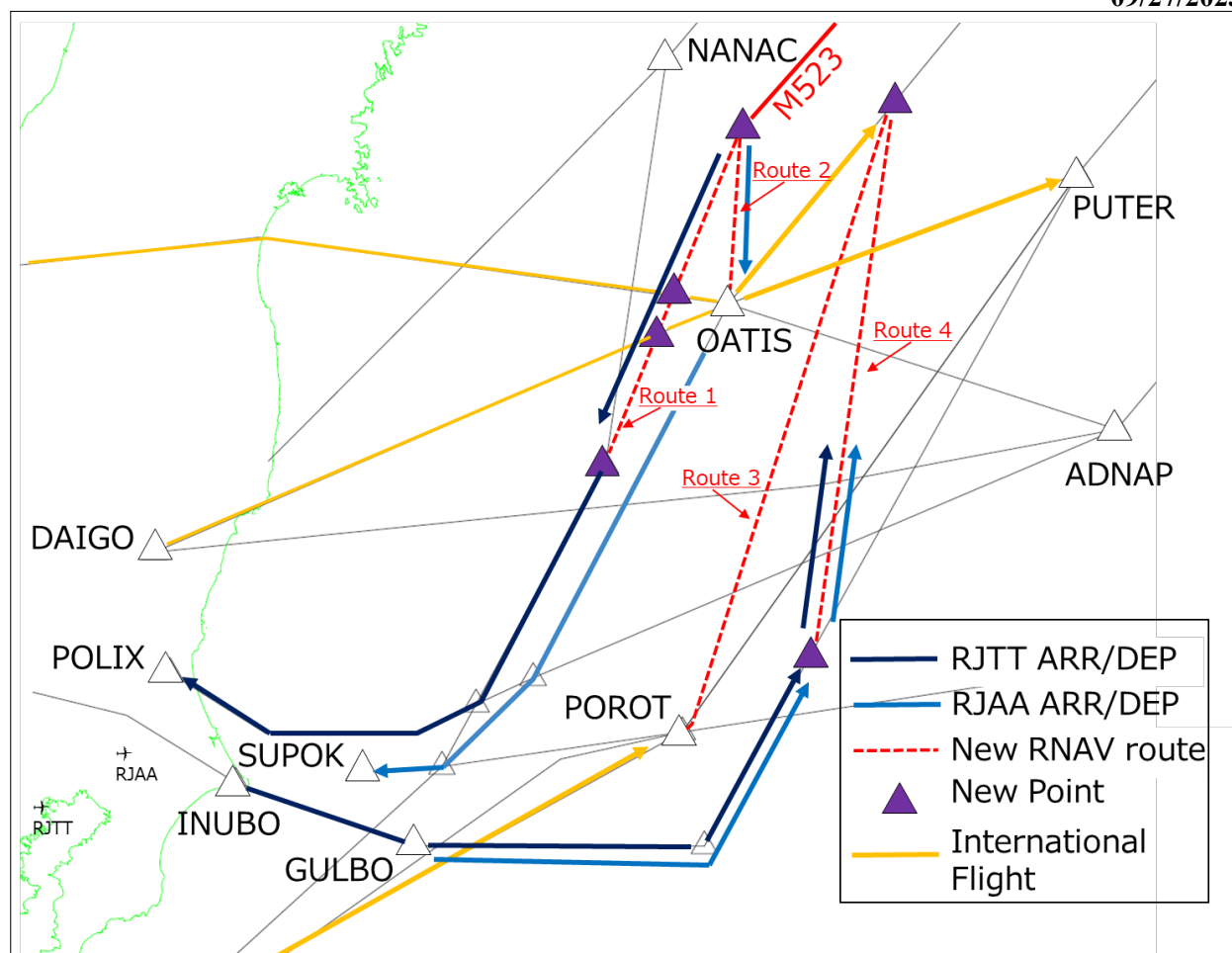


Figure 2: Route structure of continental routes after Phase 2

2.10. Route 3 is for international flights from South Asia to North America, whose flight route is the new eastward R580. Route 4 is for departure aircraft from RJTT and RJAA to R580 in NOPAC. Flight inspection for all four RNAV5 routes was completed in July 2023, with no issue confirmed and identified.

2.11. The new RNAV5 routes will be published in AIP in November 2023. JCAB has also started to consider and discuss route structure after Phase 3 implementation.

3. Conclusion

3.1 The meeting is invited to note the information provided.