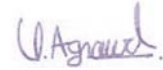


TEL: 91-11-24632950 Extn: 2219/2233 AFS: VIDDYXAX FAX: 91-11-24615508 E_mail:- gmais@aai.aero	INDIA AERONAUTICAL INFORMATION SERVICES AIRPORTS AUTHORITY OF INDIA RAJIV GANDHI BHAVAN SAFDARJUNG AIRPORT NEW DELHI – 110003	<table border="1"> <tr> <td data-bbox="1128 286 1473 380" style="text-align: center;"> 9 / 2010 12 March 2010 </td> </tr> </table>	9 / 2010 12 March 2010
9 / 2010 12 March 2010			

File No. AAI/ATM/AIS/ 09-09/ 2010

This Supplement is issued for information, guidance and necessary action.



V P AGRAWAL
CHAIRMAN

AIRPORTS AUTHORITY OF INDIA

[Effective Date: 15 March 2010]

CSI AIRPORT MUMBAI

HELICOPTER ROUTING MUMBAI / JUHU

1. Helicopter VFR routes are established to streamline the flow of helicopter movement within Mumbai Control Zone to various helipads and Bombay High.
2. **Conditions common to all the procedures are:**
 - 2.1 Helicopter shall be operated on specified VFR route.
 - 2.2 During Special VFR conditions, these helicopter VFR route shall be followed by helicopter pilot holding valid instrument rating or by helicopter pilot having authorization in accordance with Civil Aviation Requirement (CAR) Section XIII Series O Part I dated 6th Sept 2004 and with appropriate instrumentation on-board.
 - 2.3 Helicopter will establish their position with reference to landmark given in the corridor.
 - 2.4 If identification of landmark is not feasible, helicopters will remain at least 5NM beyond Mumbai Airport and follow ATC instructions.
 - 2.5 Helicopter to maintain not more than 700 Ft AGL within 20NM of Mumbai Airport unless specified otherwise.
 - 2.6 Helicopters will be manoeuvred at speed that will provide adequate opportunity to observe other traffic or obstacle in time to avoid collision risk.
 - 2.7 The routes defined by VOR-DME arc shall be flown by the pilots holding instrument ratings.
 - 2.8 Any deviation to avoid obstacle, traffic or wake turbulence/downwash shall normally be in the direction away from the Mumbai airport. If unable, any deviation towards Mumbai airport shall be in coordination with Mumbai approach.

- 2.9 Transponders will not be operated within 10NM from Mumbai unless due to emergency or when instructed by ATC.
- 2.10 Helicopter will maintain two-way communication with Juhu Tower unless otherwise specified.
- 2.11 Unless instructed by ATC, helicopter departing from Juhu to execute immediate turn after departure for establishing the specified track.
- 2.12 Procedures requiring flight over sea are for suitably equipped helicopter meeting DGCA requirements for undertaking flight over sea.
- 2.13 Helicopter not suitably equipped as in clause 11 above or without DME shall obtain alternate clearance from Mumbai Tower/Approach before departure.
- 2.14 The option of crossing take-off path/approach path of Mumbai airport is also available but the delay entailed may be heavy.
- 2.15 ATC may require helicopters to orbit due to traffic.
- 2.16 Operations from Juhu aerodrome are based on visibility at Juhu airfield.
- 2.17 Incoming helicopter shall pass their position and ETA-Juhu when 30NM from BBB.
- 2.18 All distances and radial specified in the procedures are from Mumbai “BBB” VOR/DME.

3 List of Helicopter VFR routes

Helicopter VFR route designator	Route	Runway in use at Mumbai airport
K009, K010	DAKC – Mahalaxmi Racecourse – DAKC	09 or 27 or 32
K011, K012	DAKC – Mahalaxmi Racecourse – DAKC	14
K013, K014	Juhu – Mahalaxmi Racecourse - Juhu	14 or 32
K015, K016	Juhu – Mahalaxmi Racecourse - Juhu	27
K017, K018	Juhu – Bombay High - Juhu	09
K019, K020, K021	Juhu – Bombay High - Juhu	27
K022, K023, K024	Juhu – Bombay High - Juhu	14 or 32

4 WGS-84 coordinates of the VOR-DME intersection designated in the Helicopter VFR routes.

VOR Radial-DME Intersection	Latitude	Longitude
R-230/16D	18 54 39.55N	072 39 42.78E
R-250/25D	18 56 12.88N	072 27 49.95E
R-270/16D	19 04 55.32N	072 35 35.34E
R-290/16D	19 10 25.82N	072 36 30.87E
R-310/20D	19 17 50.19N	072 36 05.17E
R-310/25D	19 20 59.95N	072 31 58.85E
R-330/16D	19 18 57.43N	072 43 48.53E
R-330/25D	19 26 42.56N	072 38 55.20E

MUMBAI

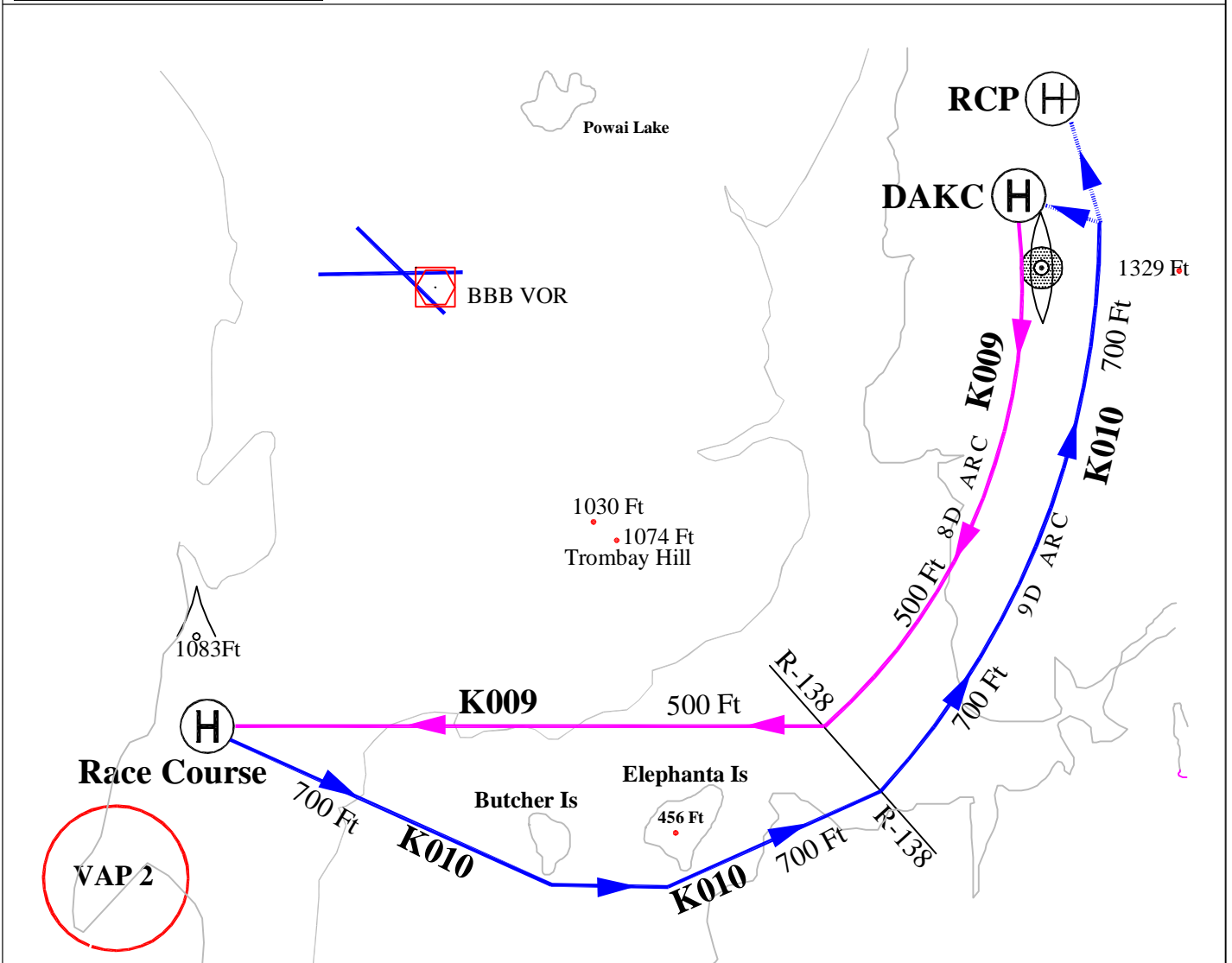
HELICOPTER VFR ROUTINGS

K009, K010

(Rwy 09 or 27 or 32 in use at Mumbai)

Juhu TWR - 122.5, 123.5
 Mumbai TWR - 118.1
 Mumbai APP - 127.9
 INS Kunjali-SPARTAN - 126.8

All radial and DME distance from BBB VOR



Helicopters to relay position and obtain traffic information from INS Kunjali, callsign "SPARTAN" on 126.8MHz.

K009 - (DAKC Helipad to Mahalaxmi Racecourse)

Climb to 500 Ft AGL and join 8D arc to proceed south. After crossing R-138, turn right and proceed to Mahalaxmi racecourse keeping Trombay Hill to the right and Elephanta Island and Butcher Island to the left.

K010 - (Mahalaxmi Racecourse to DAKC Helipad)

Climb 700 Ft AGL and proceed initially south-east and then north-east keeping Butcher Island and Elephanta Island to the left, crossing R-138 (BBB), turn left and join 9D arc and proceed to DAKC helipad.

Note- Any deviation to avoid obstacle, traffic or wake turbulence shall normally be in the direction away from the Mumbai airport. If unable, any deviation towards Mumbai airport shall be in coordination with Mumbai approach.

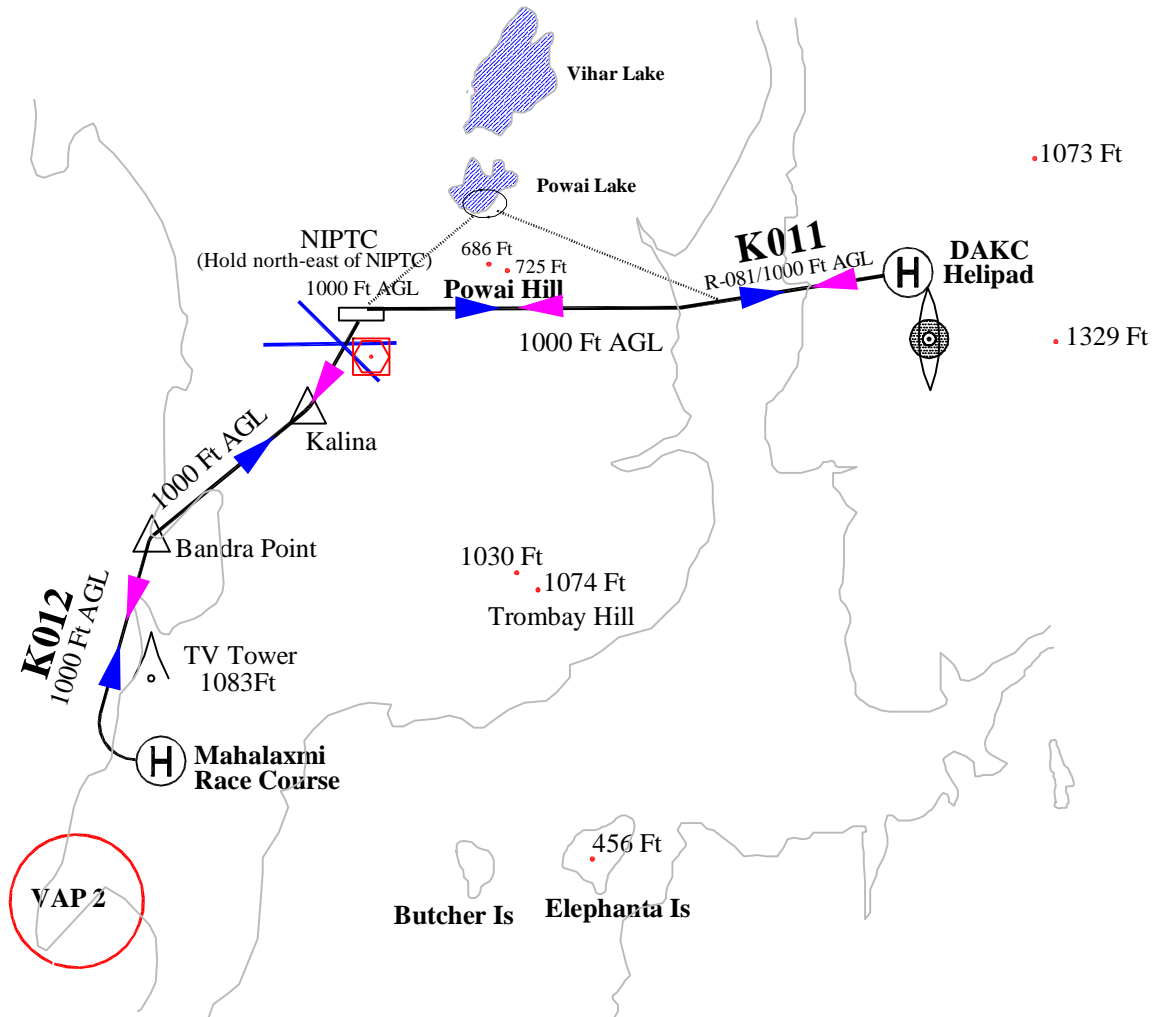
MUMBAI

HELICOPTER VFR ROUTINGS K011, K012

Juhu TWR - 122.5, 123.5
Mumbai TWR - 118.1
Mumbai APP - 127.9
INS Kunjali-SPARTAN - 126.8

(Rwy 14 in use at Mumbai)

All radial and DME distance from BBB VOR



K011 - (DAKC Helipad to Mahalaxmi Racecourse)

Climb on R-081 to 1000 Ft AGL, keeping Powai Hill to the right proceed to NIPTC. Hold, if required, over Powai lake/North-east of NIPTC, clear of approach/take-off path of RWY14/32 and RWY09/27. When cleared by Mumbai Tower/Approach cross take-off path of RWY14 and proceed via Kalina, Bandra point, then proceed along the coastline keeping TV Tower at Worli to the left to Mahalaxmi racecourse

K012 - (Mahalaxmi Racecourse to DAKC Helipad)

Climb to 1000 Ft AGL and fly along the coastline to Bandra Point keeping TV Tower at Worli to the right, thereafter contact Mumbai Tower/Approach and proceed via Kalina to NIPTC to cross take-off path of RWY14. Keeping Powai Hill to the left proceed to land at DAKC helipad.

Note- Any deviation to avoid obstacle, traffic or wake turbulence shall normally be in the direction away from the Mumbai airport. If unable, any deviation towards Mumbai airport shall be in coordination with Mumbai approach.

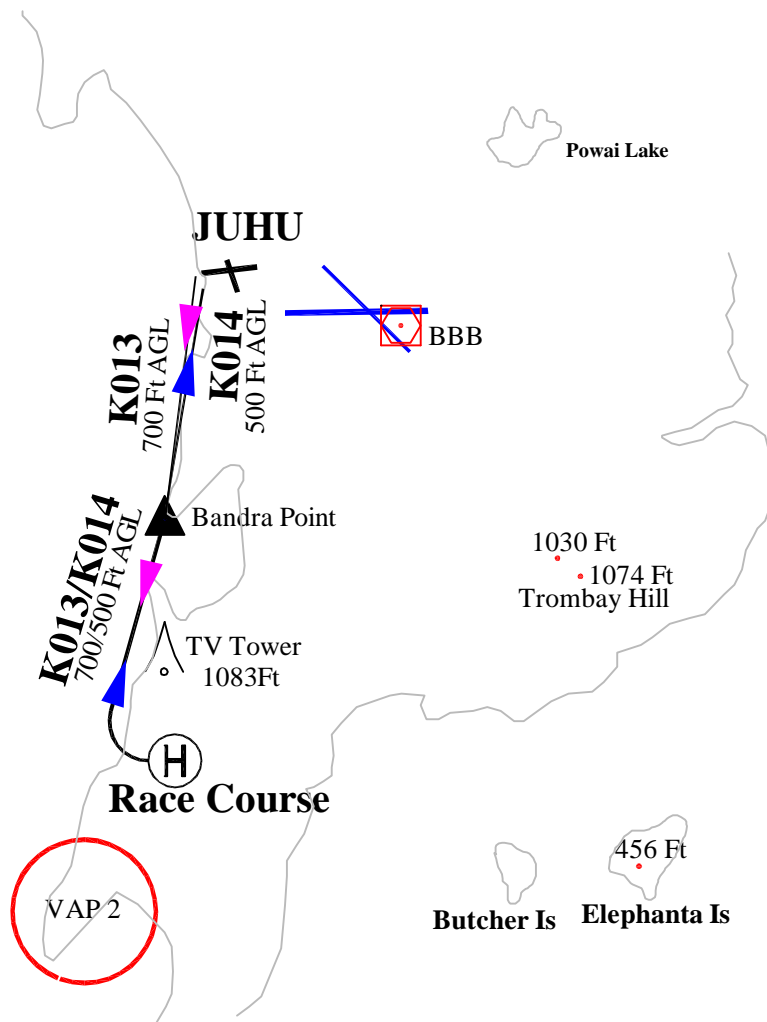
JUHU, MUMBAI

HELICOPTER VFR ROUTING K013, K014

(Rwy 14 or 32 in use at Mumbai)

Juhu TWR - 122.5, 123.5
Mumbai TWR - 118.1
Mumbai APP - 127.9
INS Kunjali-SPARTAN - 126.8

All radial and DME distance from BBB VOR



K013 - (Juhu aerodrome to South Mumbai)

Depart from RWY26, climb to 700 Ft AGL and fly along the coastline keeping TV Tower at Worli to the left thereafter proceed to destination.

K014 - (South Mumbai to Juhu aerodrome)

Climb to 500 Ft AGL, fly along the coastline keeping TV Tower at Worli to the right and proceed to Juhu aerodrome via Bandra Point to land on RWY26.

Note- Any deviation to avoid obstacle, traffic or wake turbulence shall normally be in the direction away from the Mumbai airport. If unable, any deviation towards Mumbai airport shall be in coordination with Mumbai approach.

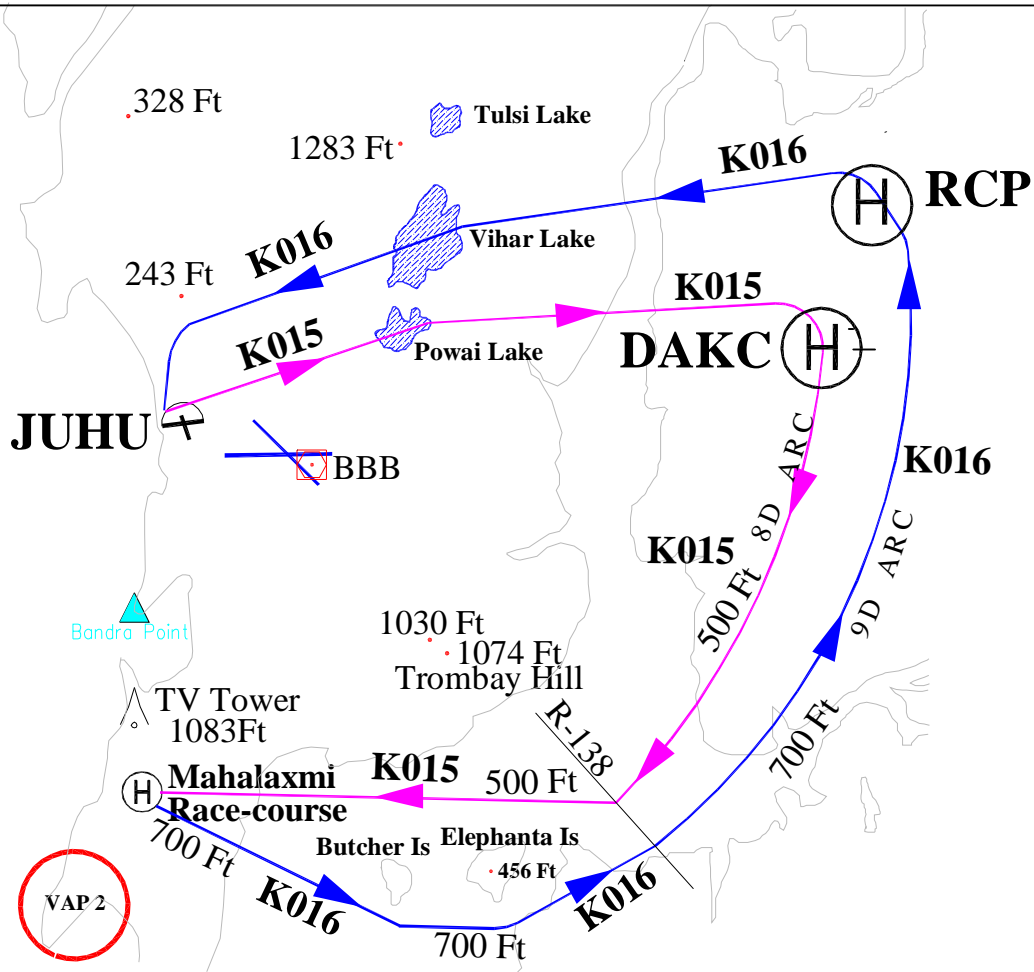
JUHU, MUMBAI

HELICOPTER VFR ROUTING K015, K016

(Rwy 27 in use at Mumbai)

Juhu TWR - 122.5, 123.5
Mumbai TWR - 118.1
Mumbai APP - 127.9
INS Kunjali-SPARTAN - 126.8

All radial and DME distance from BBB VOR



Helicopters to relay position and obtain traffic information from INS Kunjali, callsign "SPARTAN" on 126.8MHz.

K015 - (Juhu Aerodrome - DAKC Helipad - Mahalaxmi Racecourse)

Depart from RWY26, climb to 500 Ft AGL and proceed via Powai Lake to DAKC helipad and thereafter join 8D arc to proceed south. After crossing R-138, turn right and proceed to Mahalaxmi racecourse keeping Trombay Hill to the right and Elephanta Island and Butcher Island to the left.

K016 - (Mahalaxmi Racecourse - RCP Helipad - Juhu Aerodrome)

Climb 700 Ft AGL and proceed initially South-east and then north-east keeping Butcher Island and Elephanta Island to the left, crossing R-138 (BBB), turn left and join 9D arc and proceed to RCP helipad, thereafter proceed to Juhu Aerodrome via Vihar Lake.

Note 1 - Any deviation to avoid obstacle, traffic or wake turbulence shall normally be in the direction away from the Mumbai airport. If unable, any deviation towards Mumbai airport shall be in coordination with Mumbai approach.

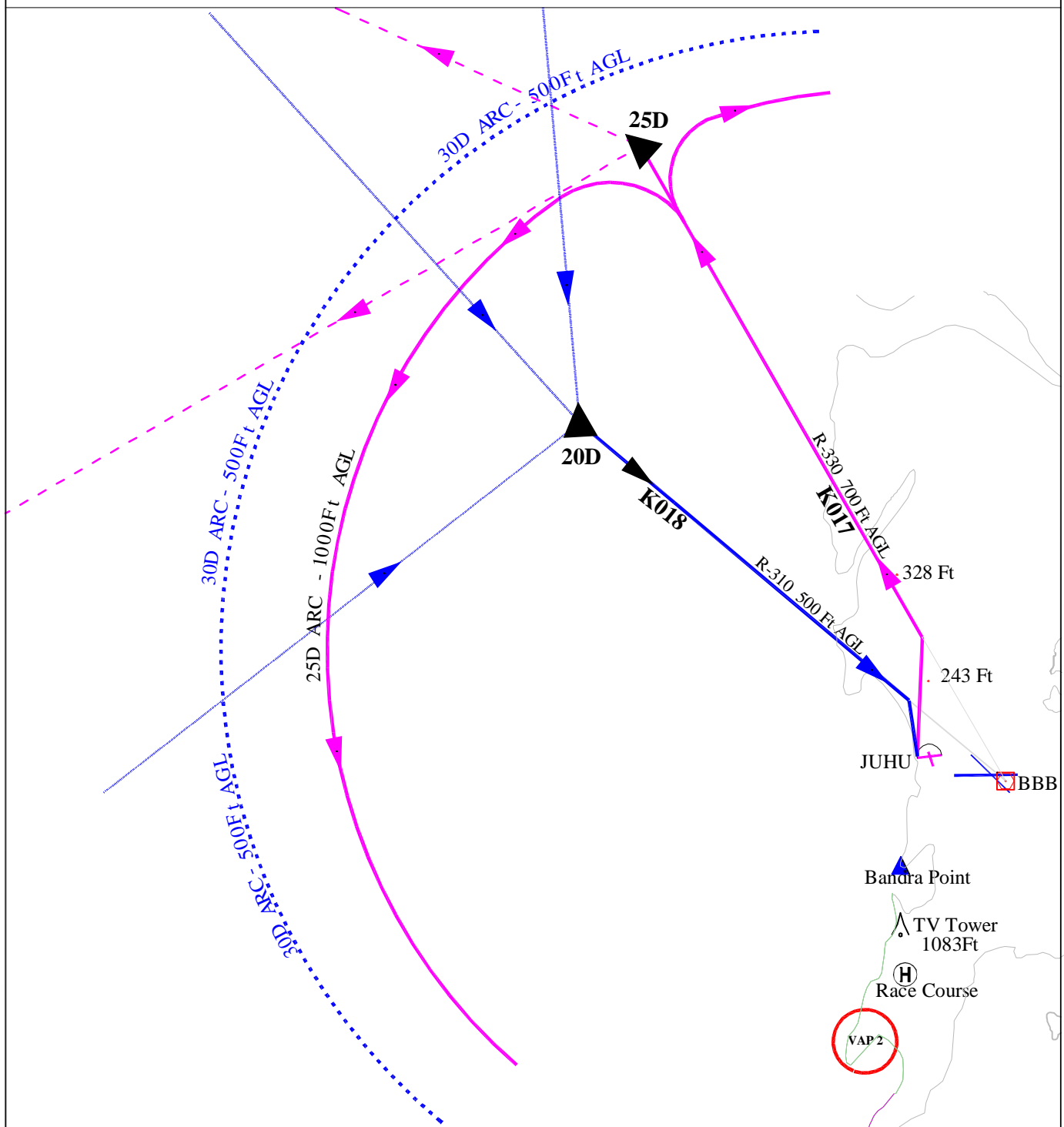
JUHU, MUMBAI

HELICOPTER VFR ROUTING K017, K018

Juhu TWR - 122.5, 123.5
Mumbai TWR - 118.1
Mumbai APP - 127.9
INS Kunjali-SPARTAN - 126.8

All radial and DME distance from BBB VOR

(Rwy 09 in use at Mumbai)



K017 - (Juhu aerodrome to Bombay High)

After departure from RWY26, proceed on R-330 (BBB) upto 25D maintaining 700 Ft AGL. At 25D climb to 1000 Ft and proceed direct to destination ensuring minimum distance of 25D from BBB VOR at all times or join 25D arc from BBB-VOR. Beyond 25D climb to F60 Maximum.

K018 - (Bombay High to Juhu aerodrome) [Arrivals from South and South-West]

Descend and maintain 500 Ft AGL by 30D (BBB), thereafter proceed direct to establish R-310 at 20D from BBB, proceed on R-310 (BBB) to land on RWY26 at Juhu aerodrome.

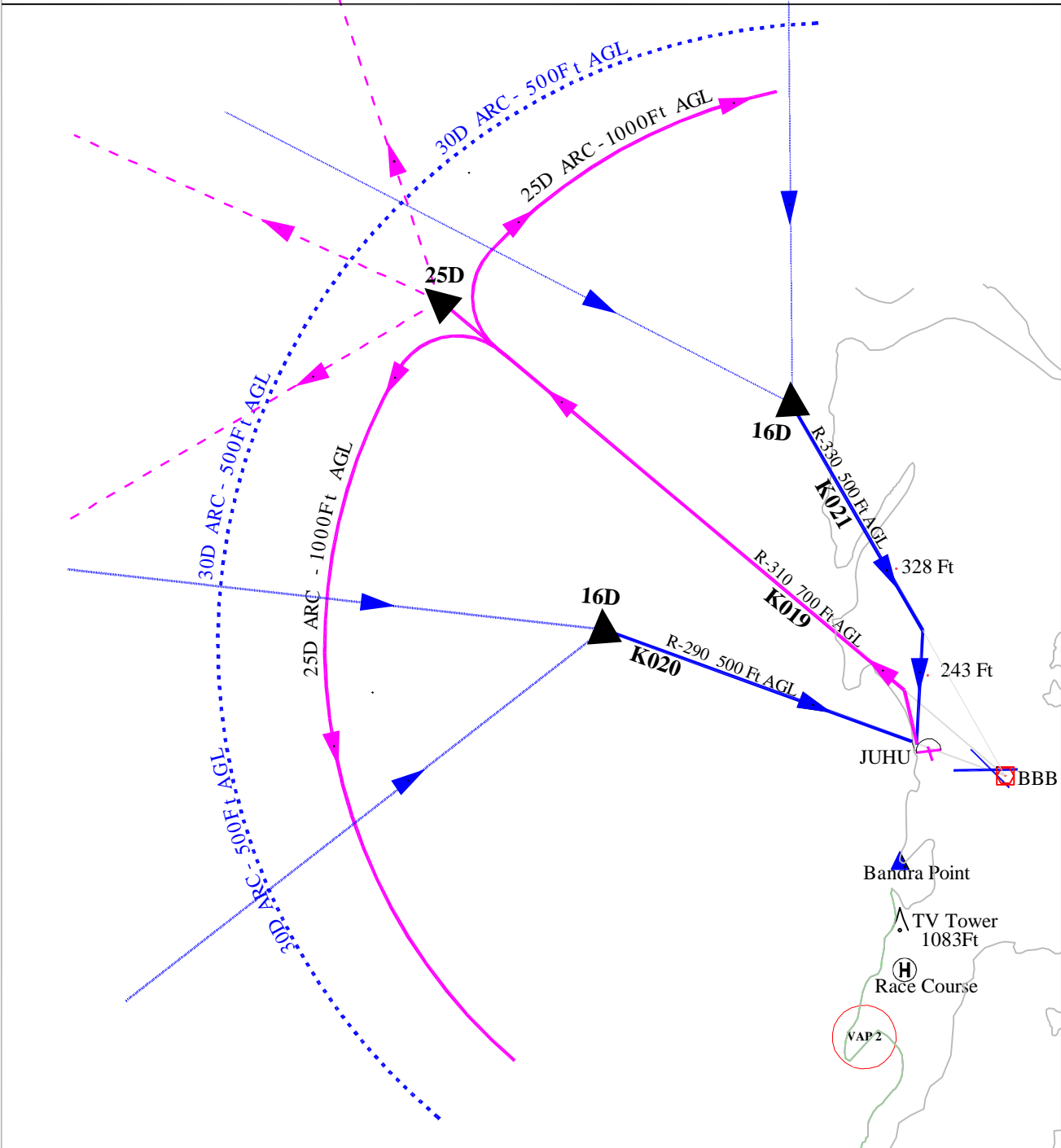
JUHU, MUMBAI

HELICOPTER VFR ROUTING K019, K020, K021

Juhu TWR - 122.5, 123.5
Mumbai TWR - 118.1
Mumbai APP - 127.9
INS Kunjali-SPARTAN - 126.8

All radial and DME distance from BBB VOR

(Rwy 27 in use at Mumbai)



K019 - (Juhu aerodrome to Bombay High)

After departure from RWY26, proceed on R-310 (BBB) upto 25D maintaining 700 Ft AGL. At 25D climb to 1000 Ft and proceed direct to destination ensuring minimum distance of 25D from BBB at all times or join 25D arc from BBB-VOR. Beyond 25D climb to F60 Maximum.

K020 - (Bombay High to Juhu aerodrome) [Arrivals from South and South-West]

Descend and maintain 500 Ft AGL by 30D (BBB), thereafter proceed direct to establish R-290 at 16D from BBB, proceed on R-290 (BBB) to land on RWY26 at Juhu aerodrome.

K021 - (Bombay High to Juhu aerodrome) [Arrivals from North and North-West]

Descend and maintain 500 Ft AGL by 30D (BBB), thereafter proceed direct to establish R-330 at 16D from BBB, proceed on R-330 (BBB) to land on RWY26 at Juhu aerodrome.

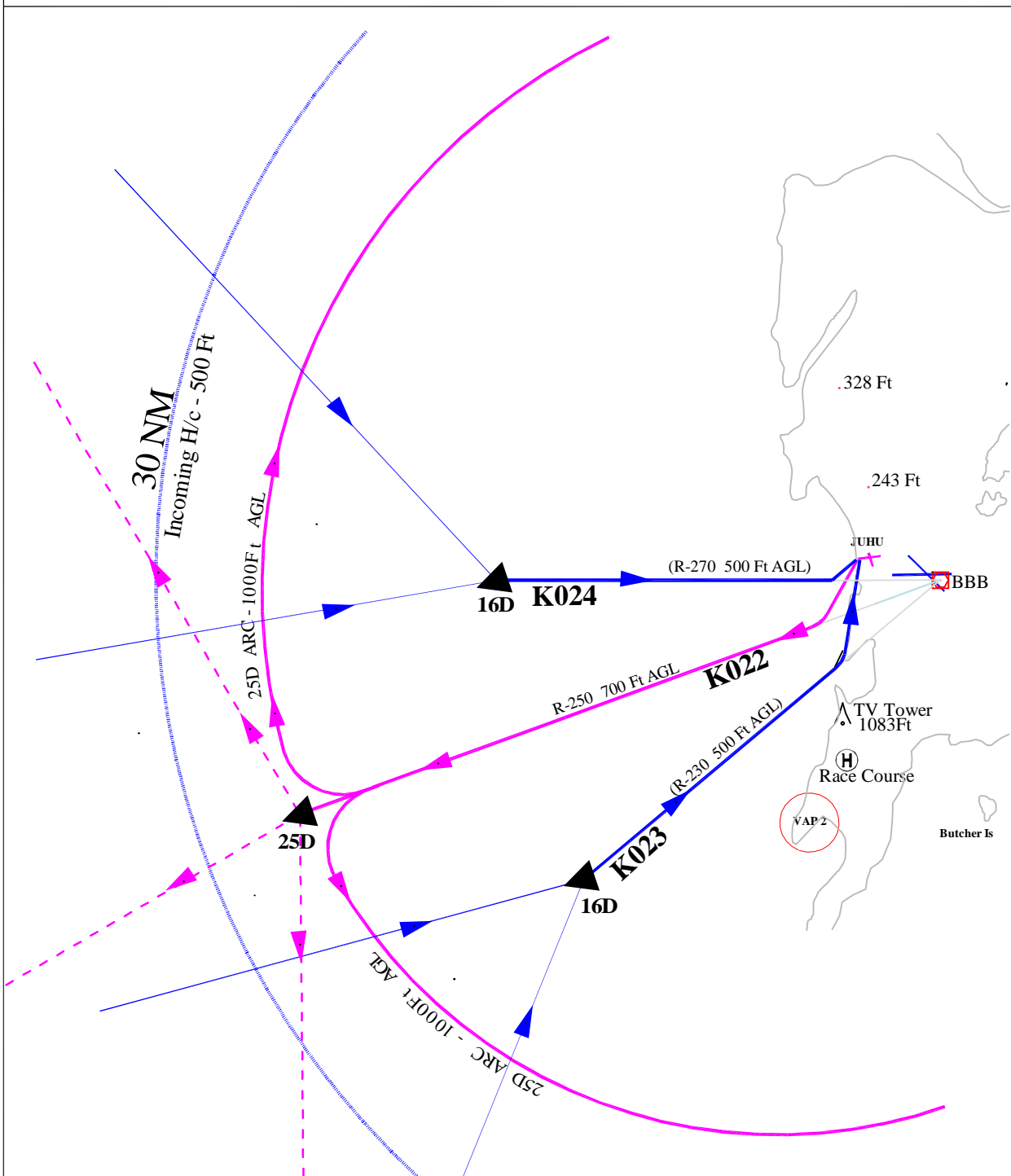
JUHU, MUMBAI

HELICOPTER VFR ROUTING K022, K023, K024

(Rwy 14 or 32 in use at Mumbai)

Juhu TWR - 122.5, 123.5
Mumbai TWR - 118.1
Mumbai APP - 127.9
INS Kunjali-SPARTAN - 126.8

All radial and DME distance from BBB VOR



K022 - (Juhu aerodrome to Bombay High)

Depart from RWY 26 proceed on R-250 upto 25D maintaining 700 Ft AGL. At 25D climb to 1000 Ft and proceed direct to destination ensuring minimum distance of 25D from BBB at all times or join 25D arc from BBB-VOR. Beyond 25D climb to F60 Maximum.

K023 - (Bombay High to Juhu aerodrome) [Arrivals from South and South-West]

Descend and maintain 500 Ft AGL by 30D (BBB), thereafter proceed direct to establish R-230 at 16D from BBB, proceed on R-270 (BBB) to land on RWY 26 at Juhu aerodrome.

K024 - (Bombay High to Juhu aerodrome) [Arrivals from North and North-West]

Descend and maintain 500 Ft AGL by 30D (BBB), thereafter proceed direct to establish R-270 at 16D from BBB, proceed on R-230 (BBB) to land on RWY 26 at Juhu aerodrome.

Mumbai Helicopter VFR Route - Significant Points

