

**Bologna / Borgo Panigale**  
**STAR RNAV1 or RNP1 RWY 12**

**TABULAR DESCRIPTION**

**BAMEK 5M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	BAMEK	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	KREVA	-	193° (196.5°)	-	8.2	-	+5000	-	RNAV1/RNP1 (1)
TF	PE730	-	193° (196.5°)	-	5.9	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE725	-	293° (296.6°)	-	4.5	R	+4000	-230	RNAV1/RNP1 (1)
TF	PE721	-	294° (297.5°)	-	4.0	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE515	-	203° (206.5°)	-	6.1	L	+3500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	L	+2500	-200	RNAV1/RNP1 (1)

**BENUS 4M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	BENUS	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	KREVA	-	167° (170.5°)	-	8.1	-	+5000	-	RNAV1/RNP1 (1)
TF	PE730	-	193° (196.5°)	-	5.9	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE725	-	293° (296.6°)	-	4.5	R	+4000	-230	RNAV1/RNP1 (1)
TF	PE721	-	294° (297.5°)	-	4.0	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE515	-	203° (206.5°)	-	6.1	L	+3500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	L	+2500	-200	RNAV1/RNP1 (1)

**LOMED 3M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	LOMED	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	PE556	-	019° (022.0°)	-	9.7	-	+FL 90	-	RNAV1/RNP1 (1)
TF	PE544	-	019° (022.1°)	-	10.9	-	+FL 90	-	RNAV1/RNP1 (1)
TF	ELVEB	-	019° (022.1°)	-	6.2	-	+6000	-	RNAV1/RNP1 (1)
TF	PE532	-	294° (297.1°)	-	6.2	L	+5000	-230	RNAV1/RNP1 (1)
TF	PE525	-	293° (296.6°)	-	6.3	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE521	-	293° (296.4°)	-	4.0	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE515	-	023° (026.5°)	-	6.0	-	+2500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	R	+2500	-200	RNAV1/RNP1 (1)

**LUMAV 4M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	LUMAV	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	PE749	-	258° (261.6°)	-	10.6	-	+4000	-	RNAV1/RNP1 (1)
TF	PE735	-	197° (200.0°)	-	9.2	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE730	-	294° (296.7°)	-	4.8	R	+4000	-230	RNAV1/RNP1 (1)
TF	PE725	-	293° (296.6°)	-	4.5	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE721	-	294° (297.5°)	-	4.0	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE515	-	203° (206.5°)	-	6.1	L	+3500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	L	+2500	-200	RNAV1/RNP1 (1)

**NIGSO 5M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	NIGSO	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	LARUD	-	082° (85.1°)	-	7.8	-	+FL 90	-	RNAV1/RNP1 (1)
TF	PE525	-	022° (024.9°)	-	8.7	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE521	-	293° (296.4°)	-	4.0	L	+5000	-230	RNAV1/RNP1 (1)
TF	PE515	-	023° (026.5°)	-	6.0	-	+2500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	R	+2500	-200	RNAV1/RNP1 (1)

**PELEG 5M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	PELEG	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	PE557	-	311° (314.2°)	-	7.2	-	+FL90	-	RNAV1/RNP1 (1)
TF	PE543	-	292° (295.0°)	-	12.9	-	+5000	-	RNAV1/RNP1 (1)
TF	ELVEB	-	293° (296.4°)	-	5.2	-	+5000	-	RNAV1/RNP1 (1)
TF	PE532	-	294° (297.1°)	-	6.2	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE525	-	293° (296.6°)	-	6.3	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE521	-	293° (296.4°)	-	4.0	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE515	-	023° (026.5°)	-	6.0	-	+2500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	R	+2500	-200	RNAV1/RNP1 (1)

**PELEG 4F (ATC discretion)**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	PELEG	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	PE557	-	311° (314.2°)	-	7.2	-	+FL90	-	RNAV1/RNP1 (1)
TF	PE735	-	322° (325.4°)	-	24.2	-	+6000	-230	RNAV1/RNP1 (1)
TF	PE730	-	294° (296.7°)	-	4.8	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE725	-	293° (296.6°)	-	4.5	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE721	-	294° (297.5°)	-	4.0	-	+4000	-230	RNAV1/RNP1 (1)
TF	PE515	-	203° (206.5°)	-	6.1	L	+3500	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	L	+2500	-200	RNAV1/RNP1 (1)

**RIPDU 4M**

Path Terminator	Waypoint Identifier	Fly Over	Course °M(°T)	Magnetic Variation	Distance (NM)	Turn Direction	Altitude (ft)	Speed Limit (kt)	Navigation Specification
IF	RIPDU	-	-	-	-	-	-	-	RNAV1/RNP1 (1)
TF	ABTIM	-	086° (088.7°)	-	6.0	-	+6000	-	RNAV1/RNP1 (1)
TF	PE527	-	097° (100.5°)	-	7.6	-	+5000	-	RNAV1/RNP1 (1)
TF	ROXOK	-	023° (026.5°)	-	6.0	-	+5000	-230	RNAV1/RNP1 (1)
TF	PE515	-	113° (116.5°)	-	5.0	-	+3000	-210	RNAV1/RNP1 (1)
TF	EMDUD	-	113° (116.6°)	-	5.0	-	+2500	-200	RNAV1/RNP1 (1)

(1) For "monitoring and alerting" reasons, RNP1 specification is required in case of radar service unavailability or degradation.

**HOLDING RNAV1**

Path Terminator	Waypoint Identifier	Inbound Course °M (°T)	Leg Distance (NM) (2)	Timing(min.)/ Waypoint Distance (NM) (3)	Turn Direction	Minimum Altitude (FT)	Maximum Altitude (FL)	Speed Limit (kt)	Magnetic Variation (°)	Navigation Specification
HM	EMDUD	113 (116.6)	3.5	4.5	L	+2500	-	-200	+3	RNAV

(2) RNAV system with holding functionality

(3) RNAV system without holding functionality

**WAYPOINT LIST**

Waypoint Identifier	Coordinates
PE515	44°39'16.2"N 010°57'21.1"E
PE521	44°33'54.0"N 010°53'36.2"E
PE525	44°32'07.1"N 010°58'36.4"E
PE527	44°36'07.6"N 010°47'20.3"E
PE532	44°29'17.6"N 011°06'29.8"E
PE543	44°24'09.8"N 011°20'39.7"E
PE544	44°20'43.7"N 011°10'55.9"E
PE556	44°10'37.5"N 011°05'14.4"E
PE557	44°18'40.9"N 011°36'57.0"E
PE721	44°44'41.8"N 011°01'09.3"E
PE725	44°42'51.0"N 011°06'07.7"E
PE730	44°40'50.0"N 011°11'45.4"E
PE735	44°38'39.5"N 011°17'48.5"E
PE749	44°47'20.1"N 011°22'13.9"E