

JEPPesen

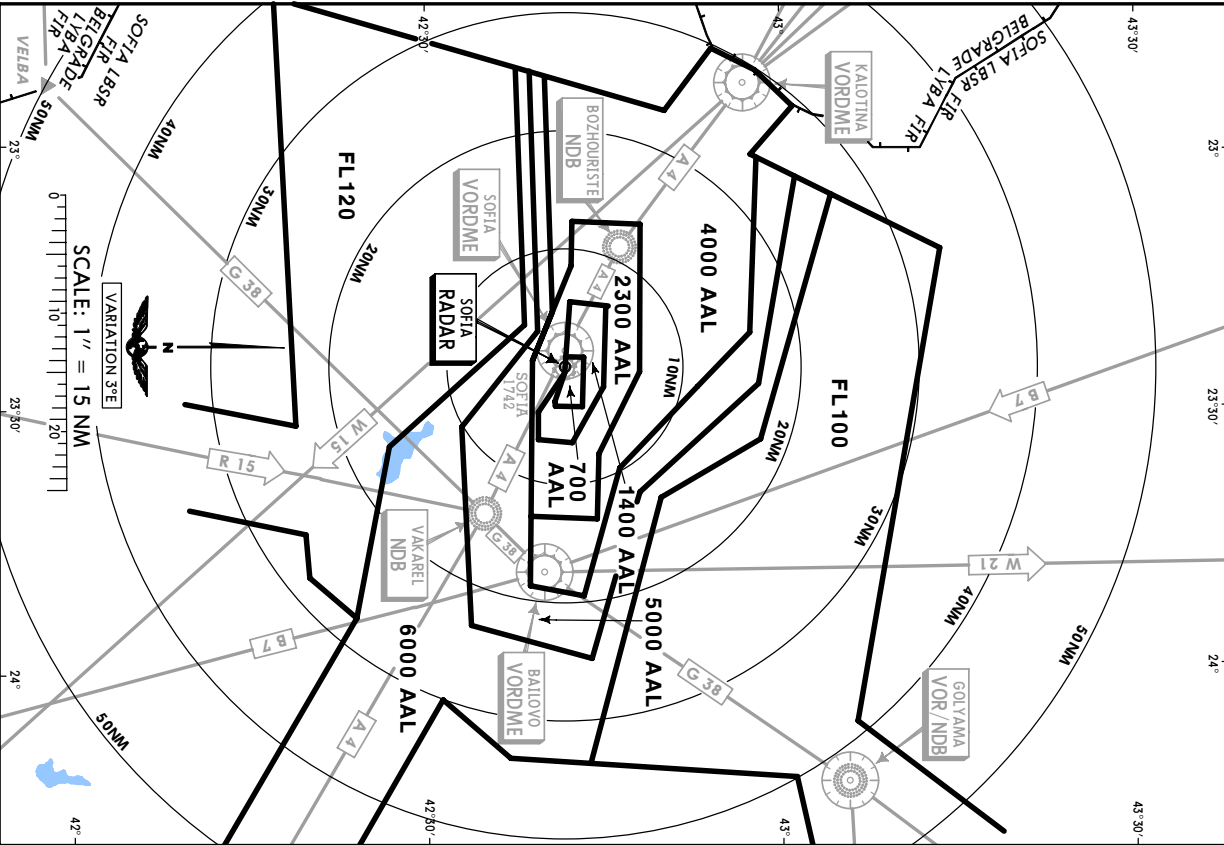
31 MAR 00

10-1R

RADAR
SOFIA, BULGARIA

RADAR MINIMUM TERRAIN CLEARANCE SECTORS/ALTITUDES

1. Altitudes: Sofia QNH.
2. Minimum altitudes provide 1000' obstacle clearance within 4.3 NM from aircraft.
3. Outside the areas for which minimum altitudes appear on the chart, the normal enroute flight levels will be used.



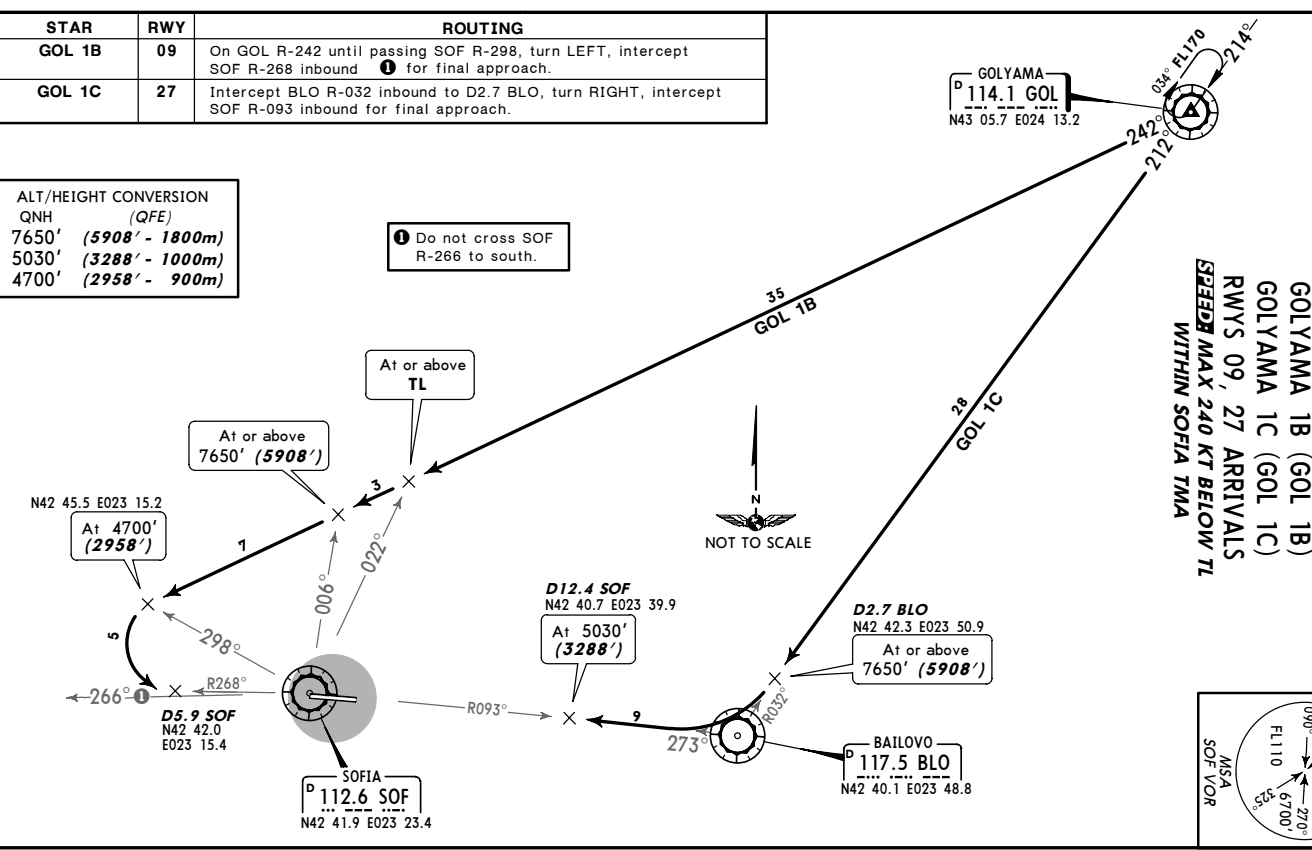
LBSE/SOF
SOFIA

JEPPesen
12 DEC 03
10-2
EFT 25 Dec

SOFIA, BULGARIA
STAR

ATIS	124.05	Apt Elev	1742'
Alt Set: hPa (MM on request) QNH on request		Trans level: By ATC Trans alt: 7650' (5908')	

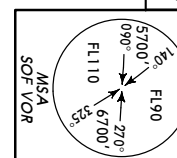
GOLYAMA 1B (GOL 1B)
GOLYAMA 1C (GOL 1C)
RWYS 09, 27 ARRIVALS
SPEED MAX 240 KT BELOW TL
WITHIN SOFIA TMA



ALT/HEIGHT CONVERSION

QNH	(QFE)
7650'	(5908' - 1800m)
5030'	(3288' - 1000m)
4700'	(2958' - 900m)

① Do not cross SOF R-266 to south.



JEPPesen

12 DEC 03

10-2

EFT 25 Dec

SOFIA, BULGARIA

STAR

SOPIA, BULGARIA
STAR

LBSF/SOF
SOPIA

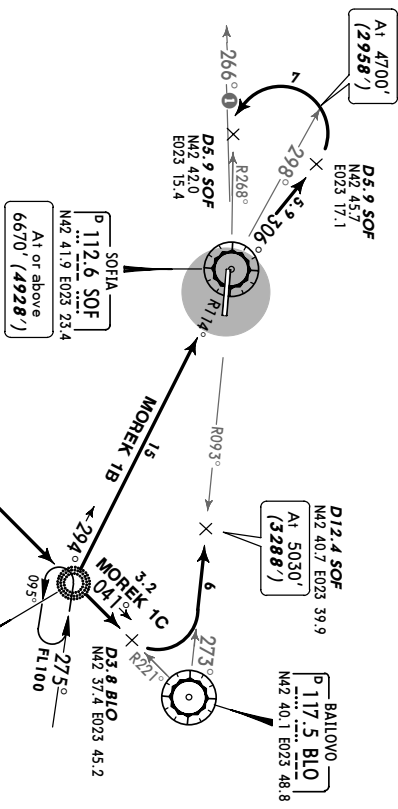
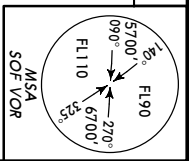
12 DEC 03 (10-2A) EFF 23 Dec

Jeppesen
EFF 23 Dec

STAR

ATIS	124.05	Appt Elev	1742'	Alt Set: hPa (NM on request) QNH on request	GNH on request	(QFE)
		Trans level: By ATC		Trans alt: 7650'	(5908')	

MOREK 1B [MORE1B]
MOREK 1C [MORE1C]
RWYS 09, 27 ARRIVALS
SPEED MAX 240 KT BELOW TL WITHIN SOPIA TMA



1 Do not cross SOF R-266 to south.

- VAKAREL
490 WAK
N42 35.0 E023 42.0
At or above
FL100
- MOREK 1B
At or above
FL100
- MOREK 1C
At or above
FL100

ALT/HEIGHT CONVERSION
(QFE)

7650'	(5908' - 1800m)
6670'	(4928' - 1500m)
5030'	(3288' - 1000m)
4700'	(2958' - 900m)

STAR	RWY	ROUTING
MOREK 1B	09	Intercept 041° bearing to WAK, turn LEFT, intercept SOF R-114 inbound to SOF, SOF R-306 to D5.9 SOF, turn LEFT, intercept SOF R-268 in-bound 1 for final approach.
MOREK 1C	27	Intercept BLO R-221 inbound to D3.8 BLO, turn LEFT, intercept SOF R-093 inbound for final approach.

SOPIA, BULGARIA
STAR

LBSF/SOF
SOPIA

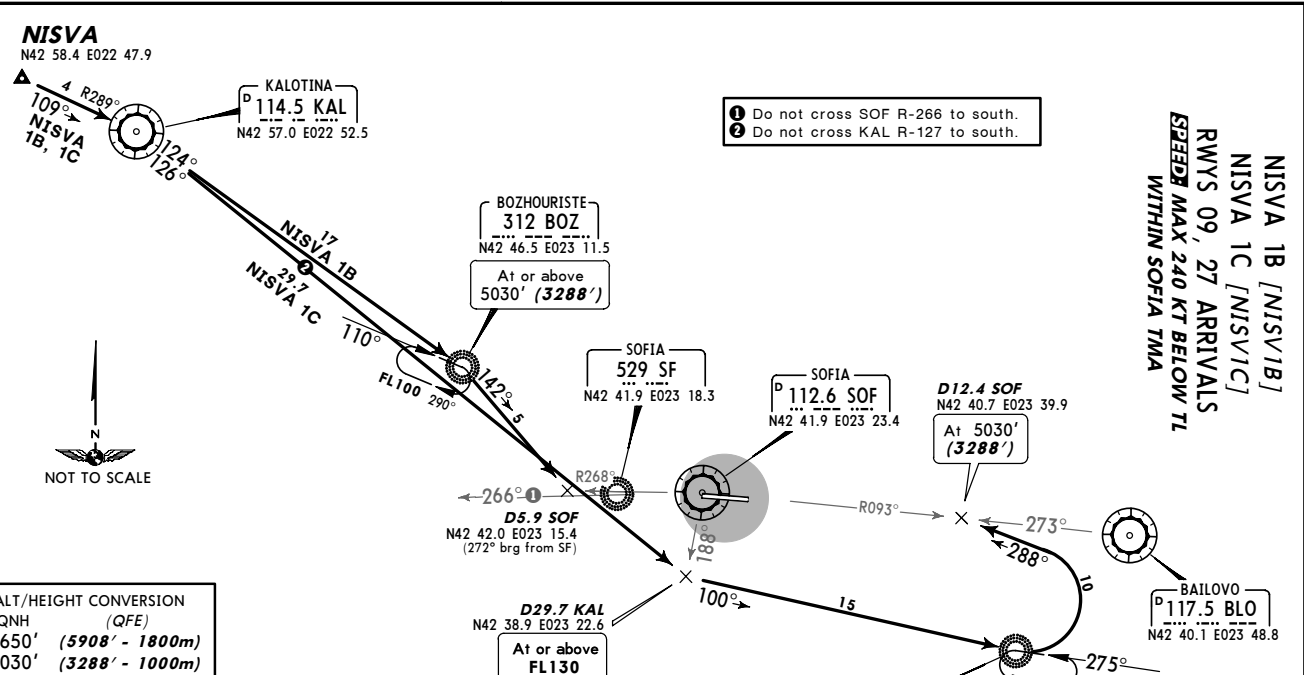
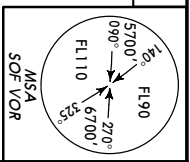
12 DEC 03 (10-2B) EFF 23 Dec

Jeppesen
EFF 23 Dec

STAR

ATIS	124.05	Appt Elev	1742'	Alt Set: hPa (NM on request) QNH on request	GNH on request	(QFE)
		Trans level: By ATC		Trans alt: 7650'	(5908')	

NISVA 1B [NISV1B]
NISVA 1C [NISV1C]
RWYS 09, 27 ARRIVALS
SPEED MAX 240 KT BELOW TL WITHIN SOPIA TMA



- 1 Do not cross SOF R-266 to south.
- 2 Do not cross KAL R-124 to south.

ALT/HEIGHT CONVERSION
(QFE)

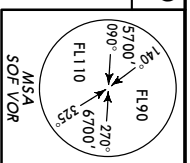
7650'	(5908' - 1800m)
5030'	(3288' - 1000m)

STAR	RWY	ROUTING
NISVA 1B	09	Intercept KAL R-289 inbound to KAL, KAL R-124 to BOZ, turn RIGHT, 142° bearing, intercept SOF R-268 inbound 1 for final approach.
NISVA 1C	27	Intercept KAL R-289 inbound to KAL, turn RIGHT, KAL R-126 passing SOF R-188, turn LEFT, intercept 100° bearing to WAK, turn LEFT, 288° track, intercept SOF R-093 inbound for final approach.

JEPPESSEN 12 DEC 03 (10-20) EFF 23 Dec
SOFIA, BULGARIA STAR

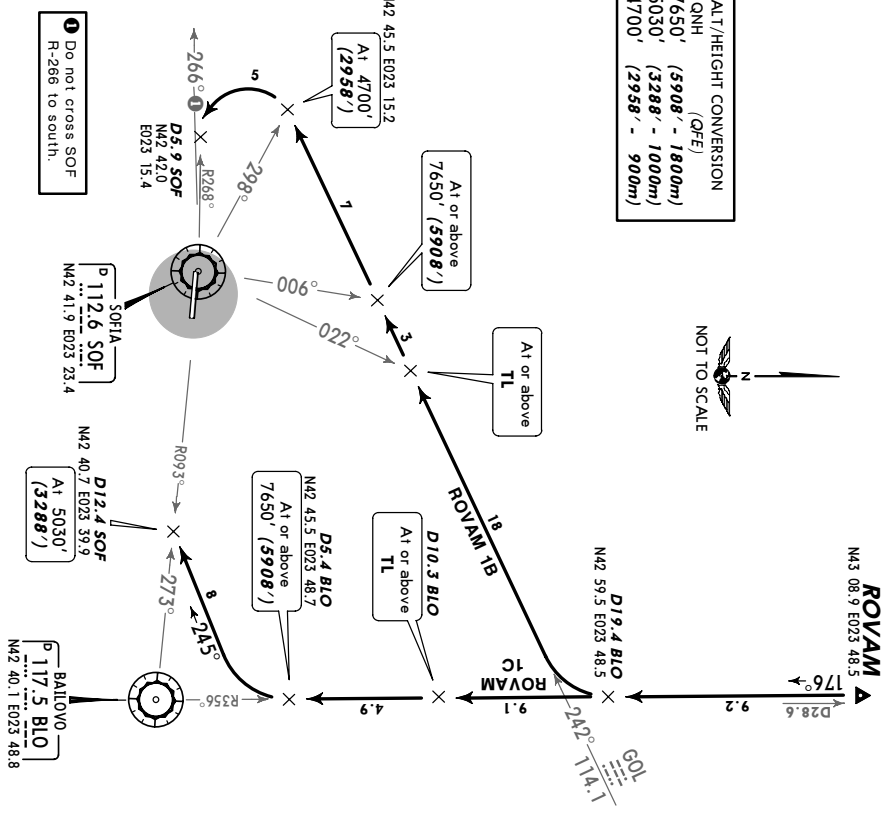
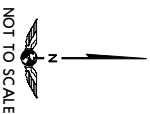
LBSE/SOF SOFIA
 ATIS 124.05
 Apt Elev 1742'
 Alt Set: hPa (NM on request) QNH on request
 Trans level: By ATC Trans alt: 7650' (5908') (QFE)

ROVAM 1B [ROVA1B]
ROVAM 1C [ROVA1C]
 RWYS 09, 27 ARRIVALS
SPEED MAX 240 KT BELOW TL
WITHIN SOFIA TMA



ALT/HEIGHT CONVERSION (QFE)

QNH	(QFE)
7650' (5908' - 1800m)	
5030' (3288' - 1000m)	
4700' (2958' - 900m)	



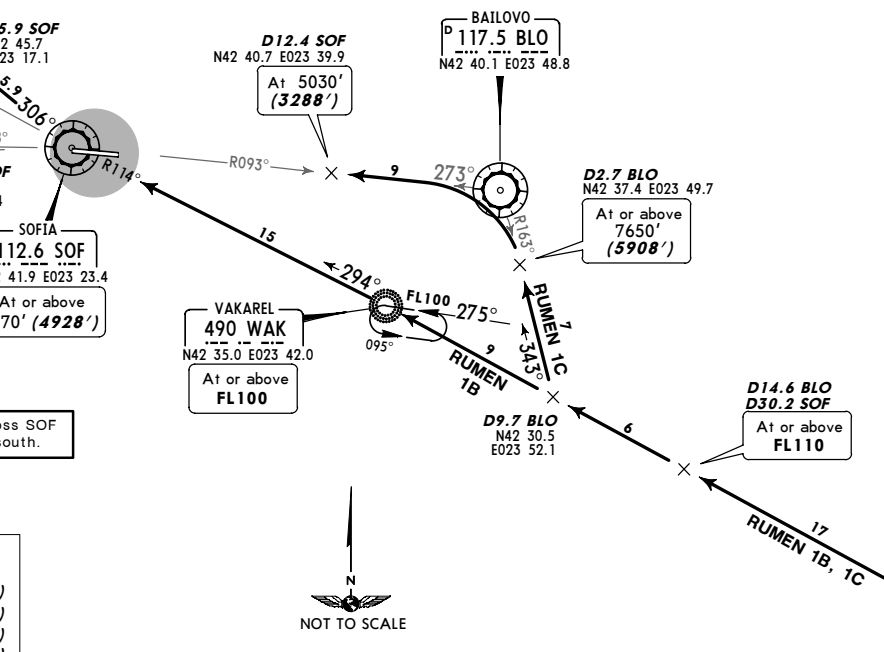
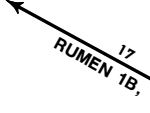
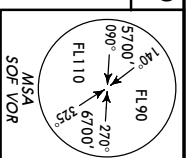
STAR	RWY	ROUTING
ROVAM 1B	09	Intercept BLO R-356 inbound to D19.4 BLO, turn RIGHT, intercept GOL R-242 until passing SOF R-298, turn LEFT, intercept SOF R-268 inbound 1 for final approach.
ROVAM 1C	27	Intercept BLO R-356 inbound to D5.4 BLO, turn RIGHT, 245° track, intercept SOF R-093 inbound for final approach.

CHANGES: ROVAM STARS established; MOERK STARS transferred. © JEPPESSEN SANDERSON, INC., 2003. ALL RIGHTS RESERVED.

JEPPESSEN 12 MAR 04 (10-2D) EFF 18 Mar
SOFIA, BULGARIA STAR

LBSE/SOF SOFIA
 ATIS 124.05
 Apt Elev 1742'
 Alt Set: hPa (NM on request) QNH on request
 Trans level: By ATC Trans alt: 7650' (5908') (QFE)

RUMEN 1B [RUME1B]
RUMEN 1C [RUME1C]
 RWYS 09, 27 ARRIVALS
SPEED MAX 240 KT BELOW TL
WITHIN SOFIA TMA



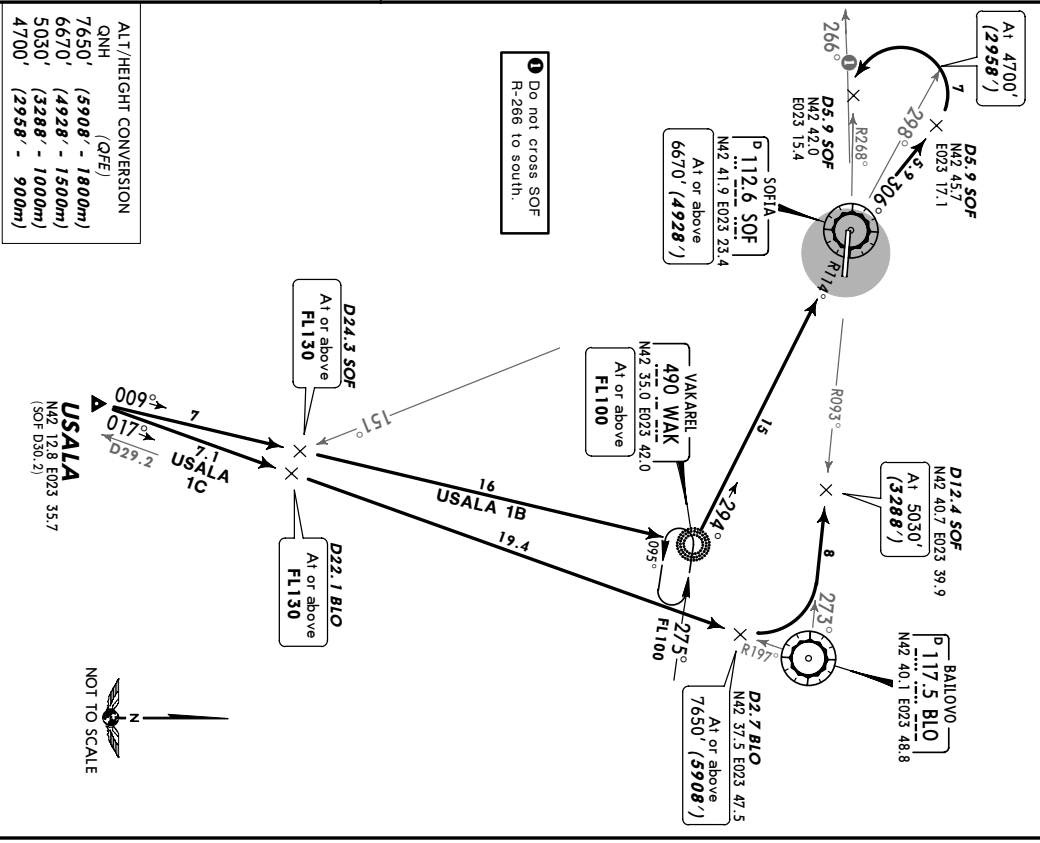
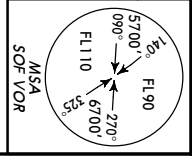
STAR	RWY	ROUTING
RUMEN 1B	09	Intercept 298° bearing to WAK, intercept SOF R-114 inbound to SOF, SOF R-306 to D5.9 SOF, turn LEFT, intercept SOF R-268 inbound 1 for final approach.
RUMEN 1C	27	Intercept 298° bearing towards WAK, intercept BLO R-163 inbound to D2.7 BLO, turn LEFT, intercept SOF R-093 inbound for final approach.

CHANGES: LABAT replaced by D9.7 BLO. © JEPPESSEN SANDERSON, INC., 2003. ALL RIGHTS RESERVED.

JEPPesen 12 MAR 04 (10-2E) EFF 18 MAR
SOFIA, BULGARIA STAR

ATIS	124.05	Apt Elev	1742'	Alt Set: hpa (NM on request)	QNH on request	(QFE)
LBSF/SOF		Trans level: By ATIS		Trans alt: 7650'	(5908')	

USALA 1B [USAL1B]
USALA 1C [USAL1C]
RWYS 09, 27 ARRIVALS
SPEED MAX 240 KT BELOW TL WITHIN SOFIA TMA



Do not cross SOF R-266 to south.

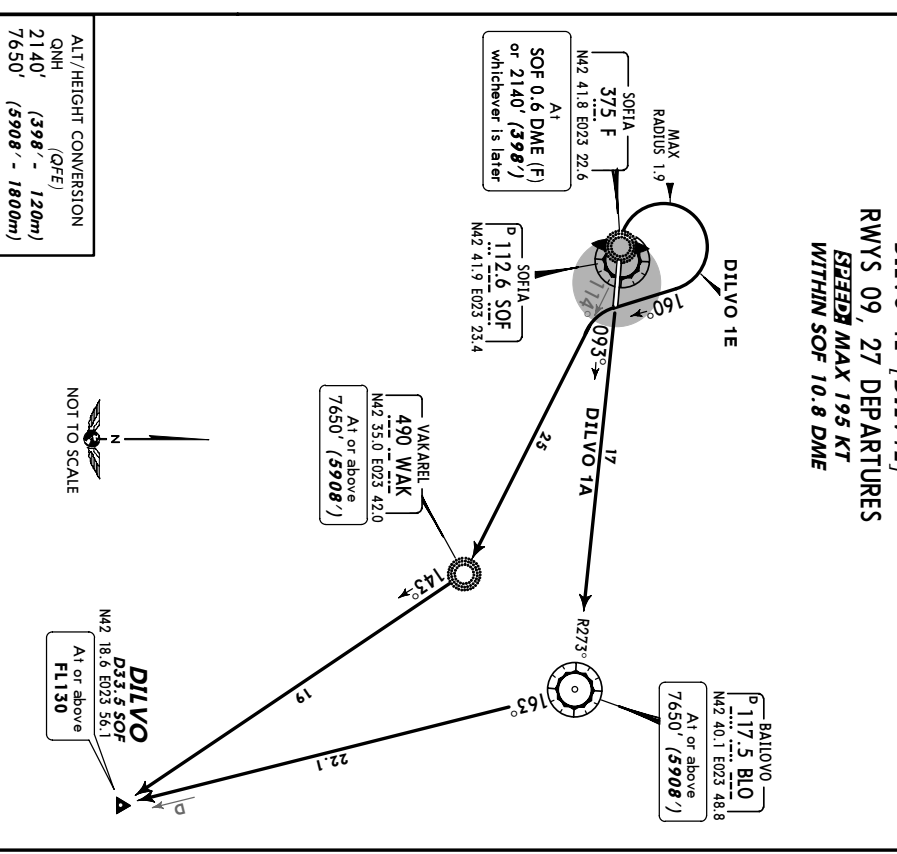
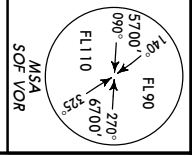
ALT/HEIGHT CONVERSION	
QNH (QFE)	
7650' (5908' - 1800m)	
6670' (4928' - 1500m)	
5030' (3288' - 1000m)	
4700' (2958' - 900m)	

STAR	RWY	ROUTING
USALA 1B	09	Intercept 009° bearing to WAK, turn LEFT, intercept SOF R-114 inbound to SOF, SOF R-306 to D5.9 SOF, turn LEFT, intercept SOF R-268 inbound 1 for final approach.
USALA 1C	27	Intercept BLO R-197 inbound to D2.7 BLO, turn LEFT, intercept SOF R-093 inbound for final approach.

JEPPesen 29 APR 05 (10-3) EFF 12 MAY
SOFIA, BULGARIA SID

LBSF/SOF		ATIS	123.7	Apt Elev	1742'	QNH on request	(QFE)
SOFIA		Trans level: By ATIS		Trans alt: 7650'	(5908')		

DILVO 1A [DILV1A]
DILVO 1E [DILV1E]
RWYS 09, 27 DEPARTURES
SPEED MAX 195 KT WITHIN SOF 10.8 DME



ALT/HEIGHT CONVERSION	
QNH (QFE)	
2140' (398' - 120m)	
7650' (5908' - 1800m)	

These SIDs require a minimum climb gradient of 334' per NM (5.5%), up to FL130.	
Gnd Speed-KT	75 100 150 200 250 300
334' per NM	418 557 835 1114 1392 1671

SID	RWY	ROUTING
DILVO 1A	09	To BLO, turn RIGHT, BLO R-163 to DILVO, climbing to assigned FL.
DILVO 1E	27	With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 160° track, intercept SOF R-114 to WAK, 143° bearing to DILVO, climbing to assigned FL.

JEPPESSEN
29 APR 05 (10-3A) **EFF 12 MAY**

SOFIA, BULGARIA
SID

LBSE/SOF
SOFIA

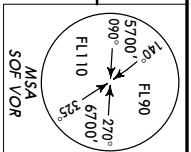
JEPPESSEN
29 APR 05 (10-3B) **EFF 12 MAY**

SOFIA, BULGARIA
SID

QNH on request (QFE)
Trans level: By ATC: 7650' (5911')
Immediately after passing 2140' (401') contact
SOFIA Radar.

SOFIA Radar
123.7

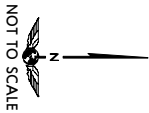
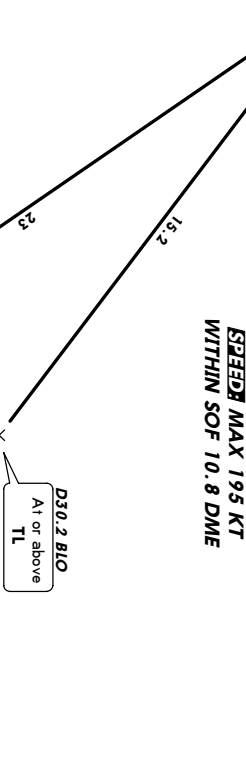
Apt Elev
1742'



**GODEK 1A [GODE1A]
GODEK 1V [GODE1V]
RWY 09 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME**

GODEK
MNS 07.6 E022 59.4

D45.4
D91.3



ALT/HEIGHT CONVERSION
QNH (QFE)
2140' (401' - 120m)
4370' (2631' - 800m)
7650' (5911' - 1800m)

These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to **FL130**.

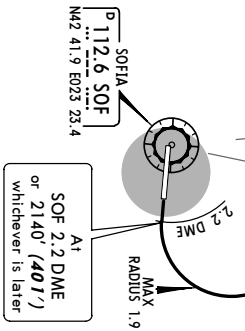
Gnd Speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply, advise SOFIA Tower when requesting start-up clearance.

SID

GODEK 1A
Climb to SOF 2.2 DME or 2140' (401'), whichever is later, turn LEFT, 290° track until passing SOF R-009, turn RIGHT, intercept BLO R-288, intercept SOF R-322 to GODEK, climbing to assigned FL.

GODEK 1V
Climb to SOF 2.2 DME or 2140' (401'), whichever is later, turn LEFT, 290° track until passing SOF R-009, turn RIGHT, intercept SOF R-352, intercept BLO R-304 to GODEK, climbing to assigned FL.



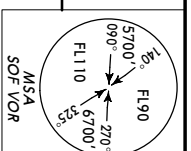
JEPPESSEN
29 APR 05 (10-3B) **EFF 12 MAY**

SOFIA, BULGARIA
SID

QNH on request (QFE)
Trans level: By ATC: 7650' (5908')
1. Immediately after passing 2140' (398') contact SOFIA Radar. 2. These SIDs are noise abatement procedures. Strict adherence within the limits of aircraft performance is mandatory.

SOFIA Radar
123.7

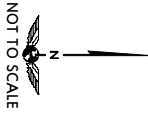
Apt Elev
1742'



**GODEK 1E [GODE1E]
GODEK 1W [GODE1W]
RWY 27 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME**

GODEK
MNS 07.6 E022 59.4

D45.4
D91.3



ALT/HEIGHT CONVERSION
QNH (QFE)
2140' (398' - 120m)
4370' (2628' - 800m)
7650' (5908' - 1800m)

These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to **FL130**.

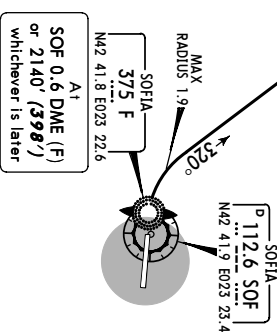
Gnd Speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply, advise SOFIA Tower when requesting start-up clearance.

SID

GODEK 1E
With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 320° track to SOF 7 DME, turn RIGHT, intercept SOF R-322 to GODEK, climbing to assigned FL.

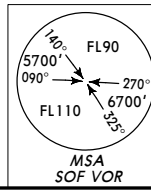
GODEK 1W
With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 320° track to SOF 7 DME, turn RIGHT, intercept GOL R-247 inbound until passing SOF R-336, turn LEFT, intercept BLO R-304 to GODEK, climbing to assigned FL.



LBSF/SOF
SOFIA

SOFIA Radar	123.7
Apt Elev	1742'
QNH on request (QFE) Trans level: By ATC Trans alt: 7650' (5908') 1. Immediately after passing 2140' (398') contact SOFIA Radar. 2. Rwy 27: This SID is a noise abatement procedure. Strict adherence within the limits of aircraft performance is mandatory.	

GOLYAMA 1A [GOL1A]
GOLYAMA 1E [GOL1E]
RWYS 09, 27 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME



2140'	(398' - 120m)
4370'	(2628' - 800m)
7650'	(5908' - 1800m)

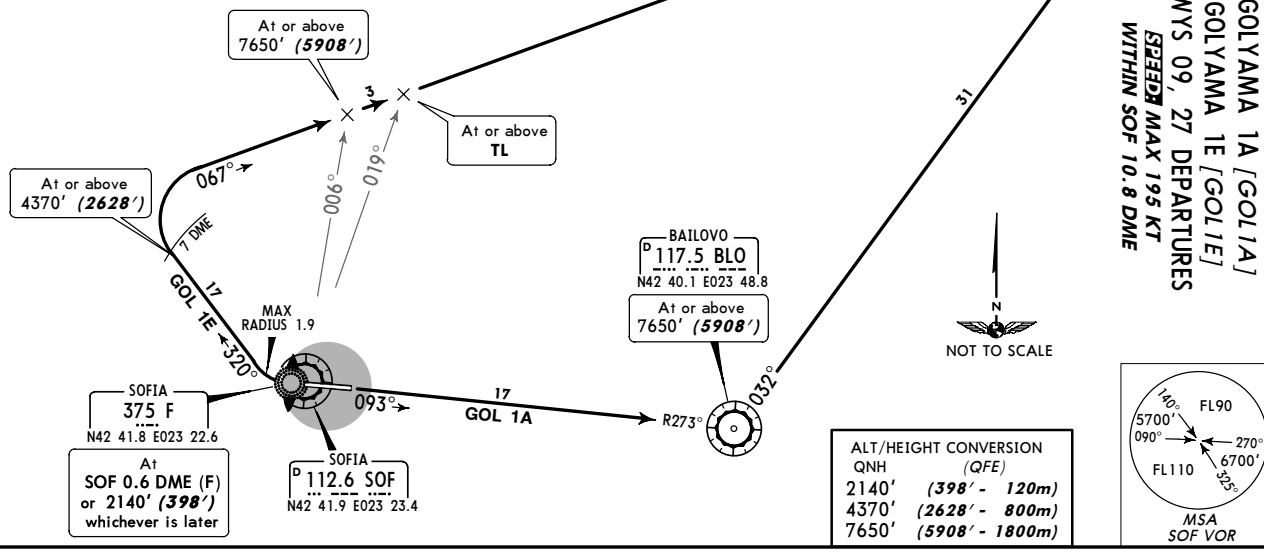


SID	RWY	ROUTING
GOLYAMA 1A	09	To BLO, turn LEFT, intercept GOL R-212 inbound to GOL, climbing to assigned FL.
GOLYAMA 1E	27	With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 320° track to SOF 7 DME, turn RIGHT, intercept GOL R-247 inbound to GOL, climbing to assigned FL.

These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to **FL130**.

Gnd Speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

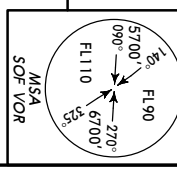
If unable to comply, advise SOFIA Tower when requesting start-up clearance.



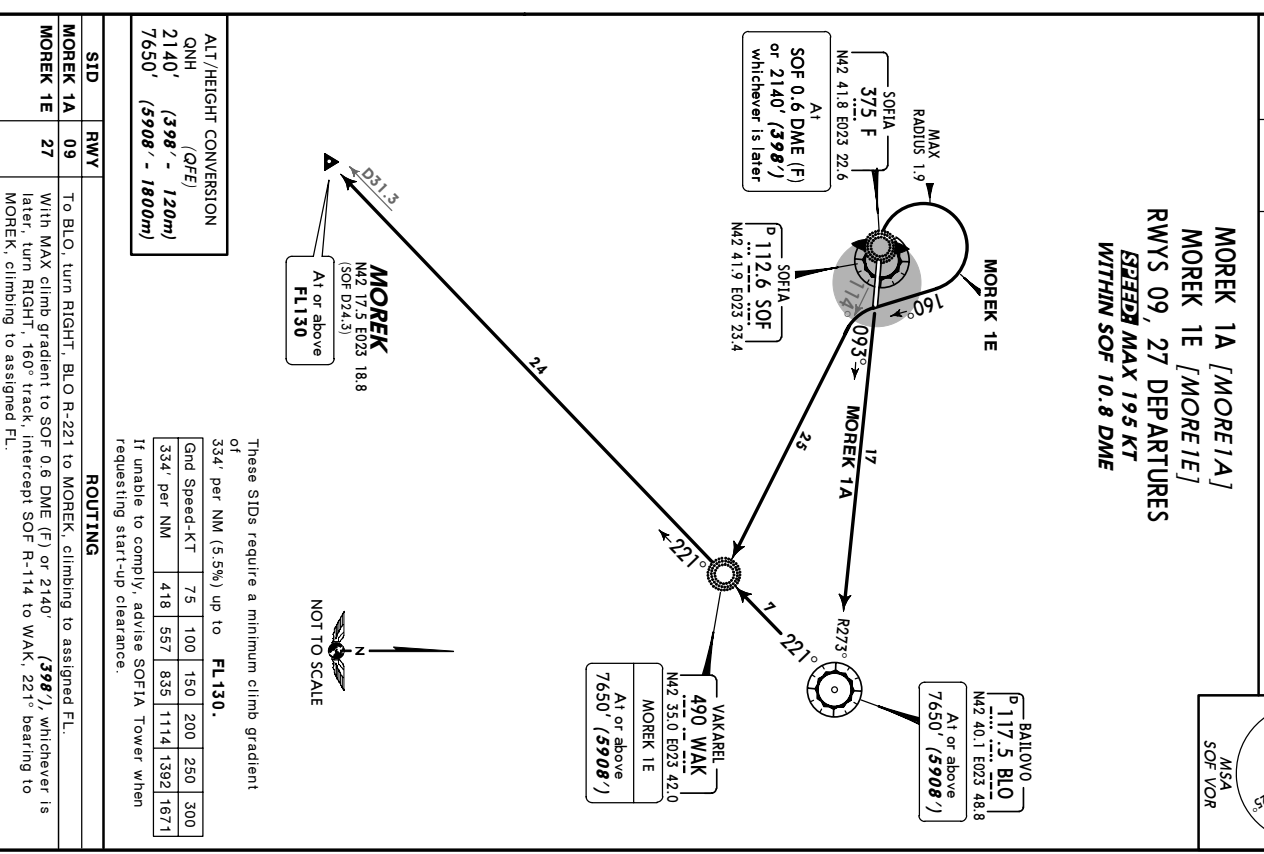
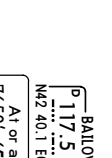
LBSF/SOF
SOFIA

SOFIA Radar	123.7
Apt Elev	1742'
QNH on request (QFE) Trans level: By ATC Trans alt: 7650' (5908') 1. Immediately after passing 2140' (398') contact SOFIA Radar. 2. Rwy 27: This SID is a noise abatement procedure. Strict adherence within the limits of aircraft performance is mandatory.	

MOREK 1A [MORE1A]
MOREK 1E [MORE1E]
RWYS 09, 27 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME



2140'	(398' - 120m)
4370'	(2628' - 800m)
7650'	(5908' - 1800m)



SID	RWY	ROUTING
MOREK 1A	09	To BLO, turn RIGHT, BLO R-221 to MOREK, climbing to assigned FL.
MOREK 1E	27	With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 160° track, intercept SOF R-114 to WAK, 221° bearing to MOREK, climbing to assigned FL.

These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to **FL130**.

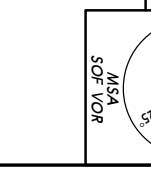
Gnd Speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

If unable to comply, advise SOFIA Tower when requesting start-up clearance.

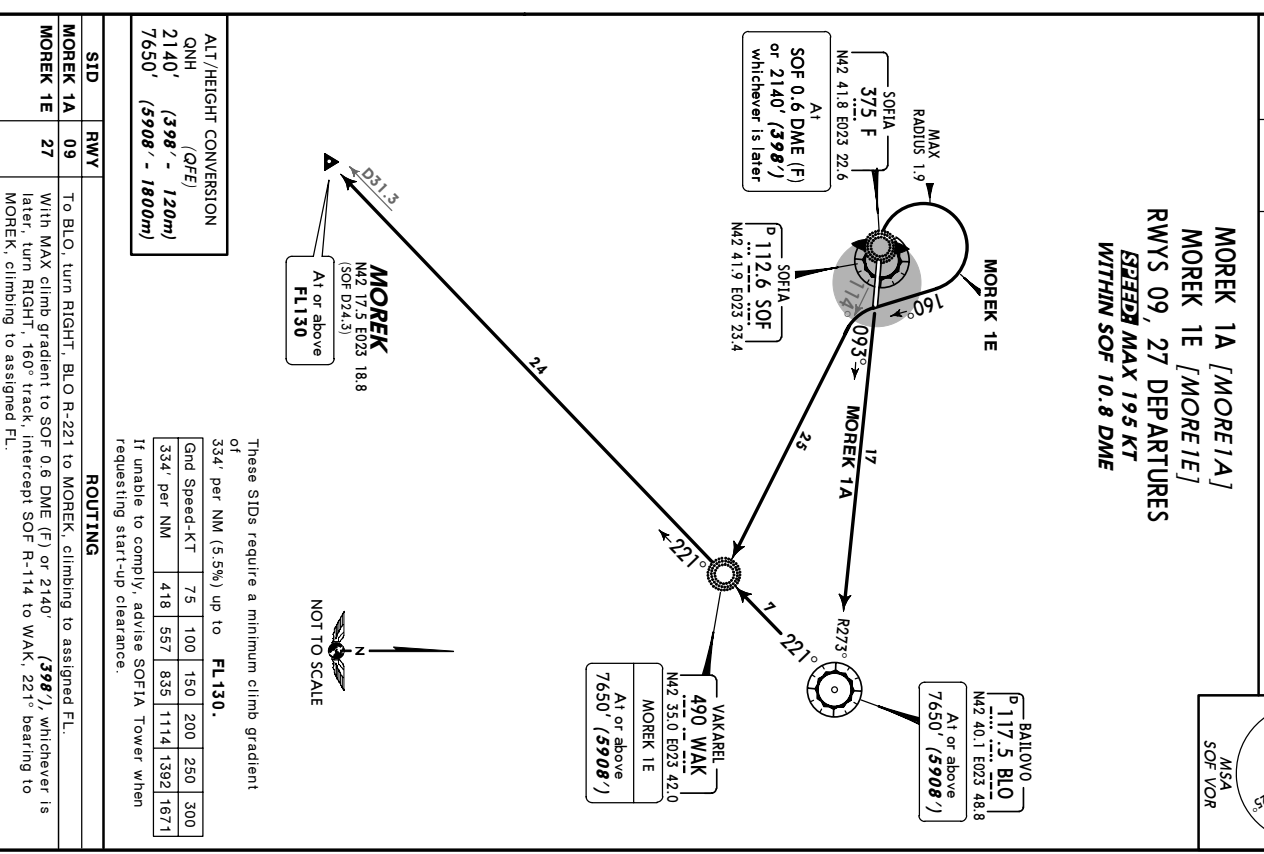
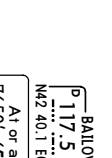
LBSF/SOF
SOFIA

SOFIA Radar	123.7
Apt Elev	1742'
QNH on request (QFE) Trans level: By ATC Trans alt: 7650' (5908') 1. Immediately after passing 2140' (398') contact SOFIA Radar. 2. Rwy 27: This SID is a noise abatement procedure. Strict adherence within the limits of aircraft performance is mandatory.	

MOREK 1A [MORE1A]
MOREK 1E [MORE1E]
RWYS 09, 27 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME



2140'	(398' - 120m)
4370'	(2628' - 800m)
7650'	(5908' - 1800m)



SID	RWY	ROUTING
MOREK 1A	09	To BLO, turn RIGHT, BLO R-221 to MOREK, climbing to assigned FL.
MOREK 1E	27	With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 160° track, intercept SOF R-114 to WAK, 221° bearing to MOREK, climbing to assigned FL.

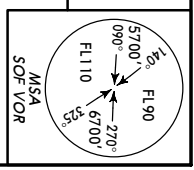
These SIDs require a minimum climb gradient of 334' per NM (5.5%) up to **FL130**.

Gnd Speed-KT	75	100	150	200	250	300
334' per NM	418	557	835	1114	1392	1671

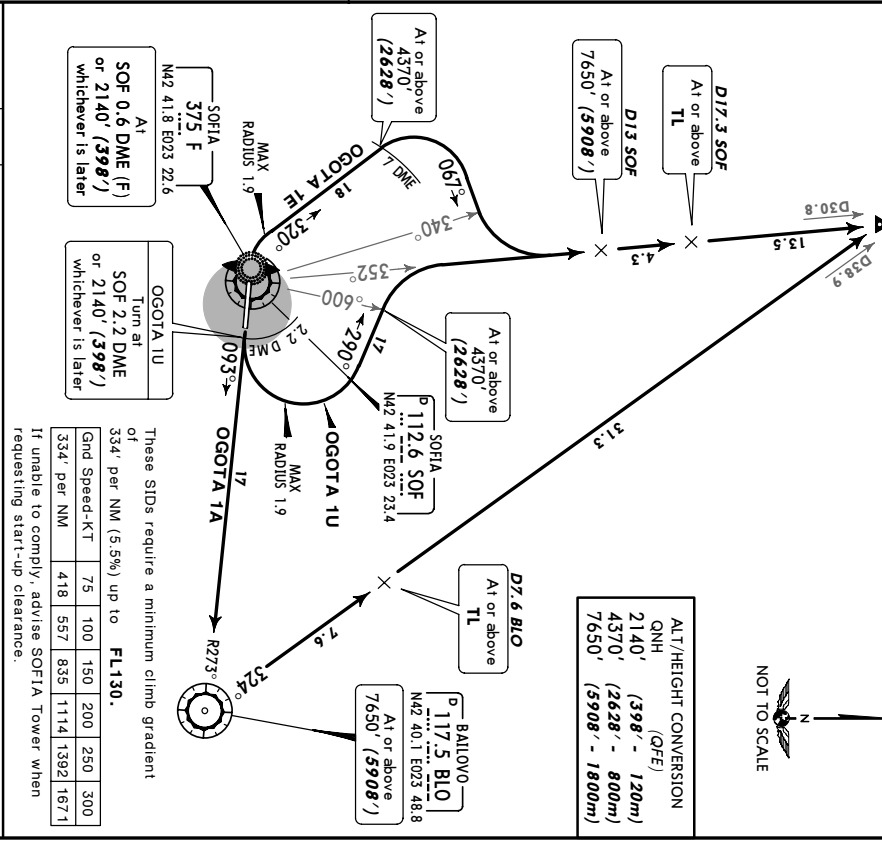
If unable to comply, advise SOFIA Tower when requesting start-up clearance.

LBSF/SOF
SOFIA

SOFIA Radar	123.7	Ap'l Elev 1742'	QNH on request (QFE) Trans alt: 7650' (5908')
1. Immediately after passing 2140' (398') contact SOFIA Radar. 2. Rwy 27: This SID is a noise abatement procedure. Strict adherence within the limits of aircraft performance is mandatory.			



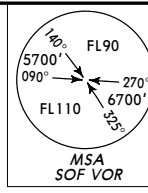
OGOTA 1A [OGOTIA]
OGOTA 1E [OGOTIE]
OGOTA 1U [OGOTIU]
RWYS 09, 27 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME



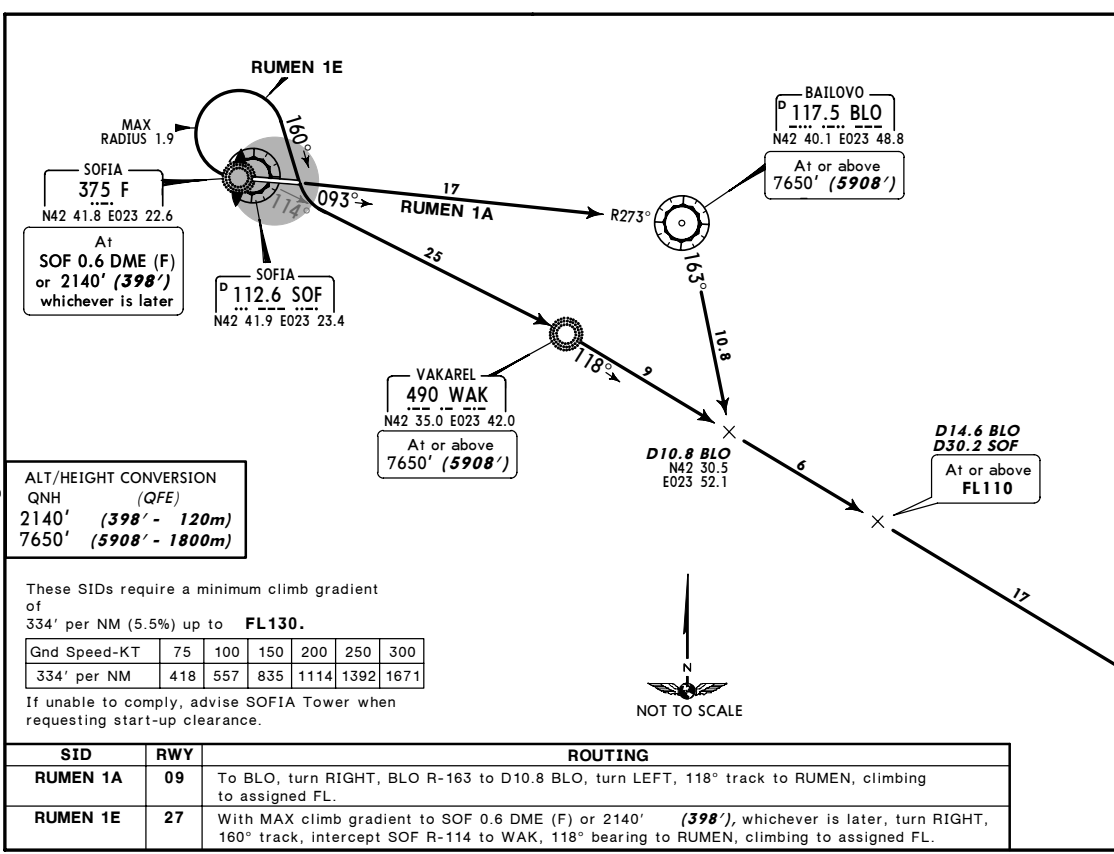
SID	RWY	ROUTING
OGOTA 1A	09	To BLO, turn LEFT, BLO R-324 to OGOTA, climbing to assigned FL.
OGOTA 1E	27	With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 320° track to SOF 7 DME, turn RIGHT, 087° track until passing SOF R-340, turn LEFT, intercept SOF R-352 to OGOTA, climbing to assigned FL.
OGOTA 1U	09	Climb to SOF 2.2 DME or 2140' (398'), whichever is later, turn LEFT, 290° track until passing SOF R-009, turn RIGHT, intercept SOF R-352 to OGOTA, climbing to assigned FL.

LBSF/SOF
SOFIA

SOFIA Radar	123.7	Ap'l Elev 1742'	QNH on request (QFE) Trans alt: 7650' (5908')
1. Immediately after passing 2140' (398') contact SOFIA Radar. 2. Rwy 27: This SID is a noise abatement procedure. Strict adherence within the limits of aircraft performance is mandatory.			



RUMEN 1A [RUMETIA]
RUMEN 1E [RUMETIE]
RWYS 09, 27 DEPARTURES
SPEED MAX 195 KT
WITHIN SOF 10.8 DME



SID	RWY	ROUTING
RUMEN 1A	09	To BLO, turn RIGHT, BLO R-163 to D10.8 BLO, turn LEFT, 118° track to RUMEN, climbing to assigned FL.
RUMEN 1E	27	With MAX climb gradient to SOF 0.6 DME (F) or 2140' (398'), whichever is later, turn RIGHT, 160° track, intercept SOF R-114 to WAK, 118° bearing to RUMEN, climbing to assigned FL.

LBSF/SOF **JEPPESEN** **SOFIA, BULGARIA**
SOFIA 29 APR 05 **(10-4)** **EFF 12 MAY** **NOISE**

NOISE ABATEMENT

Ap/ Elev
1742'

SUMMER: LT minus 3 HOURS = UTC(Z)
WINTER: LT minus 2 HOURS = UTC(Z)

GENERAL

The following procedures are specified for noise abatement over populated areas of Sofia city. Deviations are only permitted for safety reasons. Overflying of Sofia city is prohibited except in cases stated in para EXCEPTIONS below.

RUNWAY USAGE

Runway 27 will be used for take-off at daytime and nighttime in cases when:
 - the strength and direction of the wind do not allow the use of runway 09;
 - the controller clears the take-off due to an intensive traffic or in cases stated in para EXCEPTIONS below.

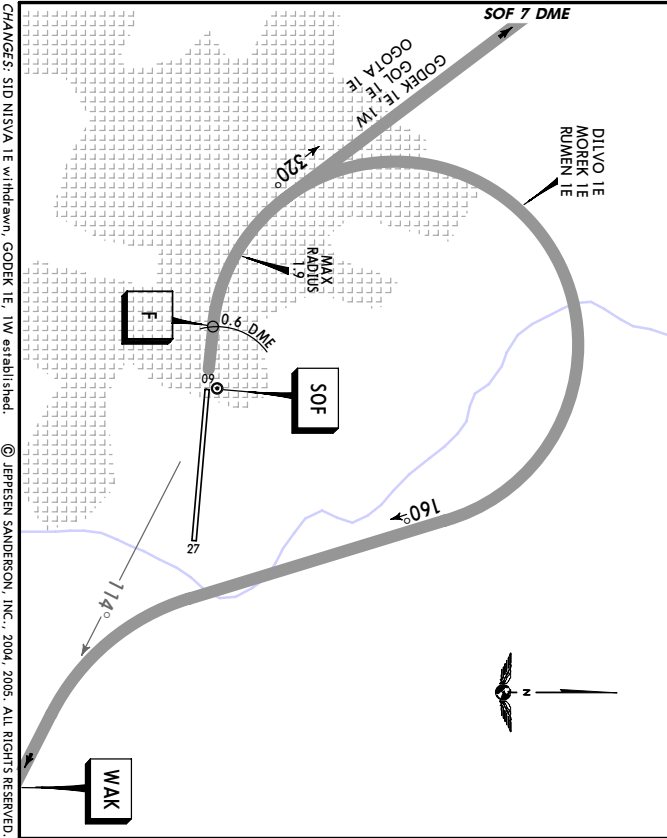
Runway 09 will be used for landing at daytime and nighttime in cases when:
 - the strength and direction of the wind do not allow the use of runway 27;
 - the controller clears the landing due to an intensive traffic or in cases stated in para EXCEPTIONS below.

EXCEPTIONS

- Exceptions to runway use and overflying of Sofia city are admitted in cases of:
- governmental flights;
 - search and rescue flights;
 - ambulance flights;
 - rescue flights in distress;
 - check flights of the police;
 - emergency landings and landings of aircraft using the airport as an alternate.

RUN-UP TESTS

Engine test runs are allowed only between 0700-1900LT and may take place at the designated areas.

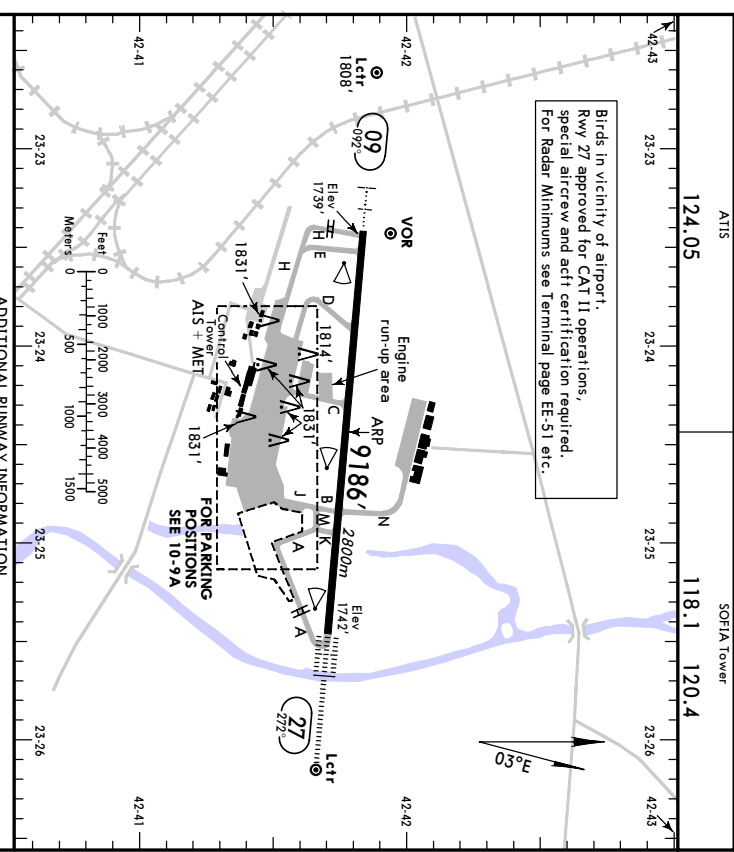


LBSF/SOF **JEPPESEN** **SOFIA, BULGARIA**
SOFIA 18 FEB 05 **(10-9)** **NOISE**

Ap/ Elev
1742'

SUMMER: LT minus 3 HOURS = UTC(Z)
WINTER: LT minus 2 HOURS = UTC(Z)

Birds in vicinity of airport.
 Rwy 27 approved for CAT II operations, special aircrew and actn certification required.
 For Radar Minimums see Terminal page EE-51 etc.



ADDITIONAL RUNWAY INFORMATION

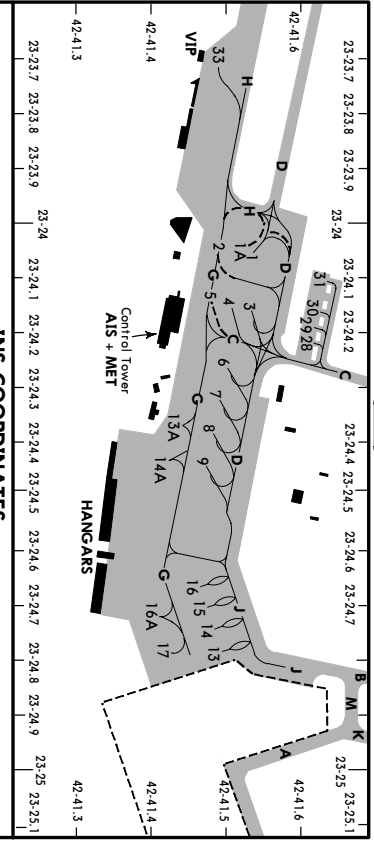
RWY	USABLE LENGTHS		WIDTH
	Threshold	Glide Slope	
09	HIRL (60m) CL (15m) HIALS PAP (3.0°)	RVR	148'
27	HIRL (60m) CL (15m) HIALS-II TDZ PAP (3.0°) RVR	8384' 2555m	45m

RWY	AIR CARRIER (All Rwy's)		AIR CARRIER (FAR 121)	
	RCLM (DAY only)	RVR	RCLM (DAY only)	RVR
A	RVR 250m	RVR 400m	RVR 500m	RVR 500m
B	RVR 200m (175m)	RVR 300m	RVR 500m	RVR 500m
C	RVR 250m (200m)	RVR 400m	RVR 600m	RVR 500m
D	RVR 250m (200m)	RVR 400m	RVR 600m	RVR 500m

RWY	AIR CARRIER (All Rwy's)		AIR CARRIER (FAR 121)	
	RCLM (DAY only)	RVR	RCLM (DAY only)	RVR
A	RVR 250m	RVR 400m	RVR 500m	RVR 500m
B	RVR 200m (175m)	RVR 300m	RVR 500m	RVR 500m
C	RVR 250m (200m)	RVR 400m	RVR 600m	RVR 500m
D	RVR 250m (200m)	RVR 400m	RVR 600m	RVR 500m

RWY	AIR CARRIER (All Rwy's)		AIR CARRIER (FAR 121)	
	RCLM (DAY only)	RVR	RCLM (DAY only)	RVR
A	RVR 250m	RVR 400m	RVR 500m	RVR 500m
B	RVR 200m (175m)	RVR 300m	RVR 500m	RVR 500m
C	RVR 250m (200m)	RVR 400m	RVR 600m	RVR 500m
D	RVR 250m (200m)	RVR 400m	RVR 600m	RVR 500m

CHANGES: Minims. © JEPPESEN SANDERSON, INC., 1999, 2005. ALL RIGHTS RESERVED.



STAND No.	COORDINATES	STAND No.	COORDINATES
1, 1A	N42 41.5 E023 24.1	15, 16	N42 41.5 E023 24.7
2	N42 41.5 E023 24.0	16A	N42 41.4 E023 24.7
3	N42 41.5 E023 24.2	17	N42 41.4 E023 23.8
4, 5	N42 41.5 E023 24.1	28 thru 30	N42 41.6 E023 24.2
6, 7	N42 41.5 E023 24.3	31	N42 41.6 E023 24.1
8, 9	N42 41.5 E023 24.4	33	N42 41.5 E023 23.7
13	N42 41.5 E023 24.8		
13A	N42 41.4 E023 24.4		
14	N42 41.5 E023 24.7		
14A	N42 41.4 E023 24.4		

LOW VISIBILITY PROCEDURES

Low Visibility Procedures become effective when

- VIS is below 800m, and/or
- RVR is below 550m, and/or
- cloud base is below 200', and/or
- for training purposes.

Pilots will be informed when Low Visibility Procedures are in force by ATIS or ATC.
 Pilots shall report " Runway vacated " immediately after vacating the sensitive area.

STRAIGHT-IN RWY	A	B	C	D
09				
VOR DME	2240' (501')	2240' (501')	2240' (501')	2240' (501')
V1800m	V1800m	V1800m	V1800m	V2000m
ALS out	V2200m	V2200m	V2200m	V2400m
NDB	2140' (401')	2140' (401')	2140' (401')	2140' (401')
V1500m	V1500m	V1500m	1600m	1800m
ALS out	V1800m	V1800m	V1800m	V2000m
27				
CAT II ILS ①	1842' (100')	1842' (100')	1842' (100')	1842' (100')
RA100' R350m	RA100' R350m	RA100' R350m	RA100' R350m	RA100' R350m
ILS ②	1942' (200')	1942' (200')	1942' (200')	1942' (200')
R550m V800m	R550m V800m	R550m V800m	R550m V800m	R550m V800m
ILS	1992' (250')	1992' (250')	1992' (250')	1992' (250')
MM out	V800m ③	V800m ③	V800m ③	V1200m
ALS out	V1200m	V1200m	V1200m	V1400m
LOC ④	2040' (298')	2040' (298')	2040' (298')	2040' (298')
V1000m	V1000m	V1000m	V1000m	V1200m
ALS out	R1500m	R1500m	R1600m	R1800m
VOR DME	2140' (398')	2140' (398')	2140' (398')	2140' (398')
V1800m	V1800m	V1800m	V1800m	V2000m
NDB	2050' (308')	2050' (308')	2050' (308')	2050' (308')
V1000m	V1000m	V1000m	V1000m	1400m
ALS out	V1500m	V1500m	1800m	2000m

- ① CL or TDZ out: NIGHT R550m.
- ② CL or TDZ out: R650m V800m; CL and TDZ out: V800m.
- ③ R650m AUTHORIZED if TDZ or CL operating.
- ④ LMM out: NOT AUTHORIZED.

CIRCLE-TO-LAND	100 KT	135 KT	180 KT	205 KT
Not authorized	2700' (958')	2700' (958')	2800' (1058')	2800' (1058')
South of apt	V1600m	V2000m	V4000m	V4000m

TAKE-OFF RWY 09, 27

LVP must be in Force		NIL	
RL, CL & mult. RVR req ⑤	RL & CL	RCLM (DAY only)	(DAY only)
A	175m	200m	250m
B			300m
C			400m
D	200m	250m	400m

⑤ Three RVR required.

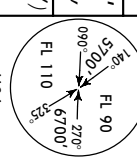
JEPPESSEN
SOFIA, BULGARIA
ILS Rwy 27

LBSF/SOF
SOFIA

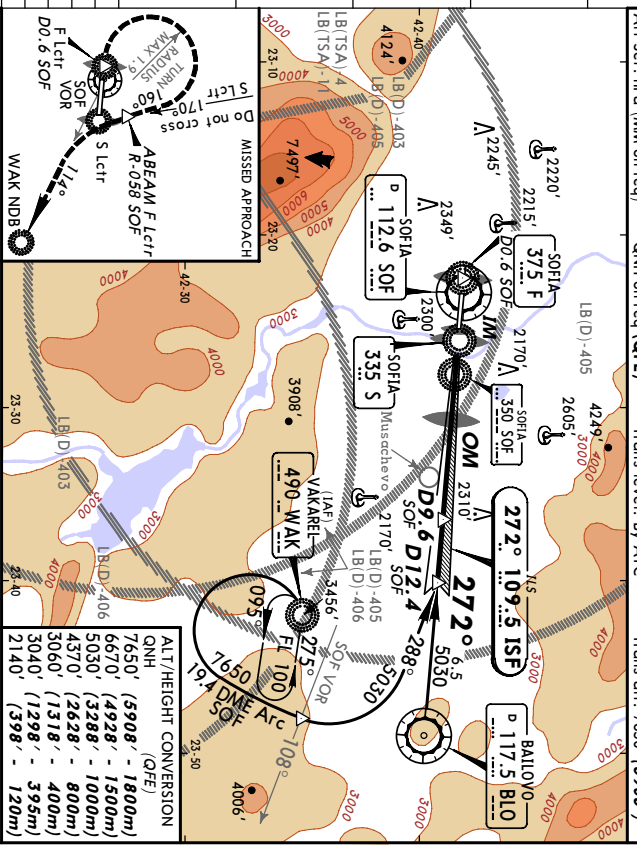
12 DEC 03 (1-1A) **EFF 23 Dec**

SOFIA Tower
 118.1 120.4

ATTIS		SOFIA Approach (R)		SOFIA Tower	
LOC	Final	GS	ILS		
ISF	Apch Crs	OM	DA(H) Refer to Minimums		
109.5	272°	3038' (1296')		Appt Elev 1742'	
				Rwy 1742'	

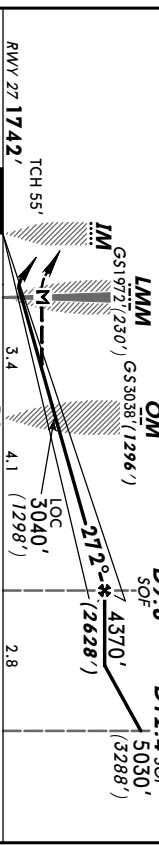


MISSED APCH: Climb STRAIGHT AHEAD (MAX climb gradient) to 2140' (398') or D0.6 SOF/F Lctr, whichever is later, then turn RIGHT (MAX IAS 195 KT / MAX RADIOS 1.9 NM) onto 160° S Lctr climbing to FL 100. When crossing R-058 SOF/ABEAM F Lctr turn LEFT to intercept R-114 SOF/114° WAK NDB to WAK NDB and hold.



ALT/HEIGHT CONVERSION

QNH	(5908' - 1800m)
7650' (4928' - 1500m)	
6670' (4928' - 1500m)	
5030' (3288' - 1000m)	
5030' (3288' - 1000m)	
4370' (2628' - 800m)	
4370' (2628' - 800m)	
3060' (1318' - 400m)	
3060' (1318' - 400m)	
2140' (398' - 120m)	



Gnd speed-Kts	70	90	100	120	140	160	HI.ALS-II
ILS GS 3.00° or	377	485	539	647	755	862	Refer to Missed Apch
LOC Descend Grad 5.2%							above
MAP at LMM							

STR.AIGHT-IN LANDING Rwy 27

DA(H)	1942'(200')	1992'(250')	2040'(298')
Full	TDZ or Cl out	TDZ & CL out	MM out
ALS out	ALS out	ALS out	ALS out
Refer to Missed Apch above			

CIRCLE-TO-LAND
 Not authorized South of appt

DA(H)	1942'(200')	1992'(250')	2040'(298')	2040'(298')
Full	TDZ or Cl out	TDZ & CL out	MM out	ALS out
ALS out	ALS out	ALS out	ALS out	ALS out
Refer to Missed Apch above				

RCM must be available if Cl. out. ■ RVR 720m authorized if Cl. or TDZ operating. ■ LMM out: NOT AUTH.

PANS OPS
 CHANGES: Missed approach.
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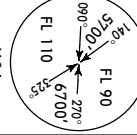
JEPPESSEN
SOFIA, BULGARIA
CAT II ILS Rwy 27

LBSF/SOF
SOFIA

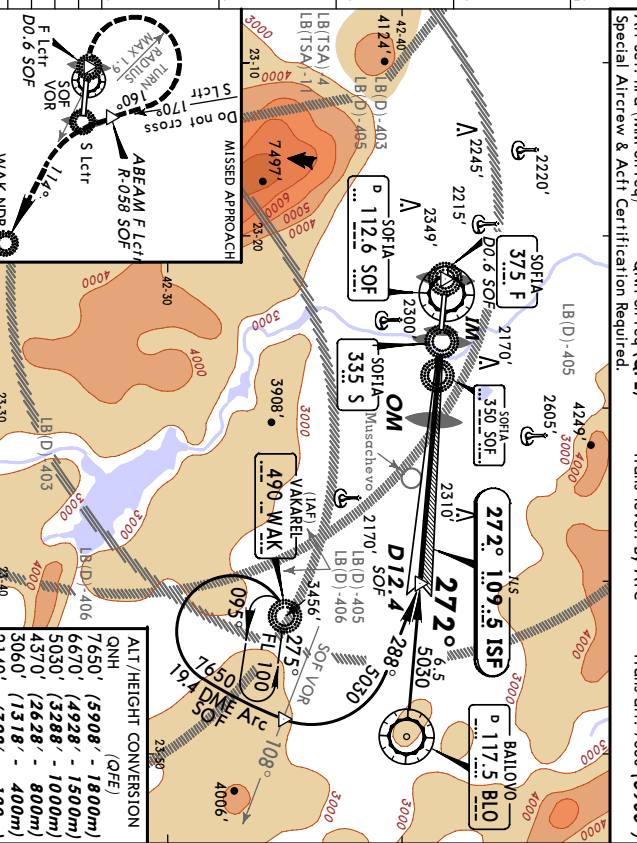
12 DEC 03 (1-1A) **EFF 23 Dec**

SOFIA Tower
 118.1 120.4

ATTIS		SOFIA Approach (R)		SOFIA Tower	
LOC	Final	GS	CAT II ILS		
ISF	Apch Crs	OM	DA(H) Refer to Minimums		
109.5	272°	3038' (1296')	RA 100'	Appt Elev 1742'	
			RA 153'	Rwy 1742'	

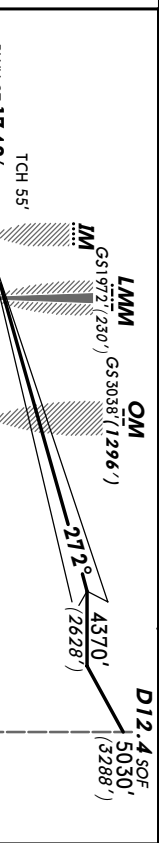


MISSED APCH: Climb STRAIGHT AHEAD (MAX climb gradient) to 2140' (398') or D0.6 SOF/F Lctr, whichever is later, then turn RIGHT (MAX IAS 195 KT / MAX RADIOS 1.9 NM) onto 160° S Lctr climbing to FL 100. When crossing R-058 SOF/ABEAM F Lctr turn LEFT to intercept R-114 SOF/114° WAK NDB to WAK NDB and hold.



ALT/HEIGHT CONVERSION

QNH	(5908' - 1800m)
7650' (4928' - 1500m)	
6670' (4928' - 1500m)	
5030' (3288' - 1000m)	
5030' (3288' - 1000m)	
4370' (2628' - 800m)	
4370' (2628' - 800m)	
3060' (1318' - 400m)	
3060' (1318' - 400m)	
2140' (398' - 120m)	



Gnd speed-Kts	70	90	100	120	140	160	HI.ALS-II
ILS GS 3.00° or	377	485	539	647	755	862	Refer to Missed Apch
LOC Descend Grad 5.2%							above
MAP at LMM							

STR.AIGHT-IN LANDING Rwy 27

ABCD	RA 100'	1842'(100')	1892'(150')
Full	TDZ or Cl out	TDZ & CL out	MM out
ALS out	ALS out	ALS out	ALS out
Refer to Missed Apch above			

CIRCLE-TO-LAND
 Not authorized South of appt

ABCD	RA 100'	1842'(100')	1892'(150')
Full	TDZ or Cl out	TDZ & CL out	MM out
ALS out	ALS out	ALS out	ALS out
Refer to Missed Apch above			

RCM must be available if Cl. out. ■ TDZ or Cl out: NIGHT RVR 550m.

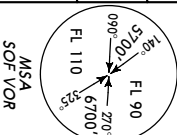
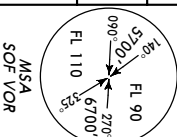
PANS OPS
 CHANGES: Missed approach.
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LBSF/SOF
SOFIA

LBSF/SOF
SOFIA

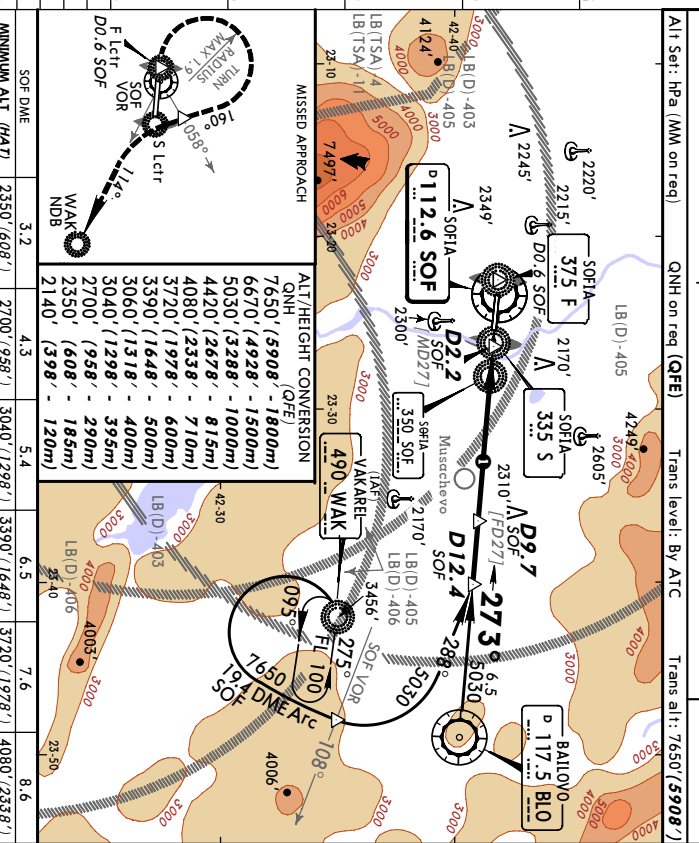
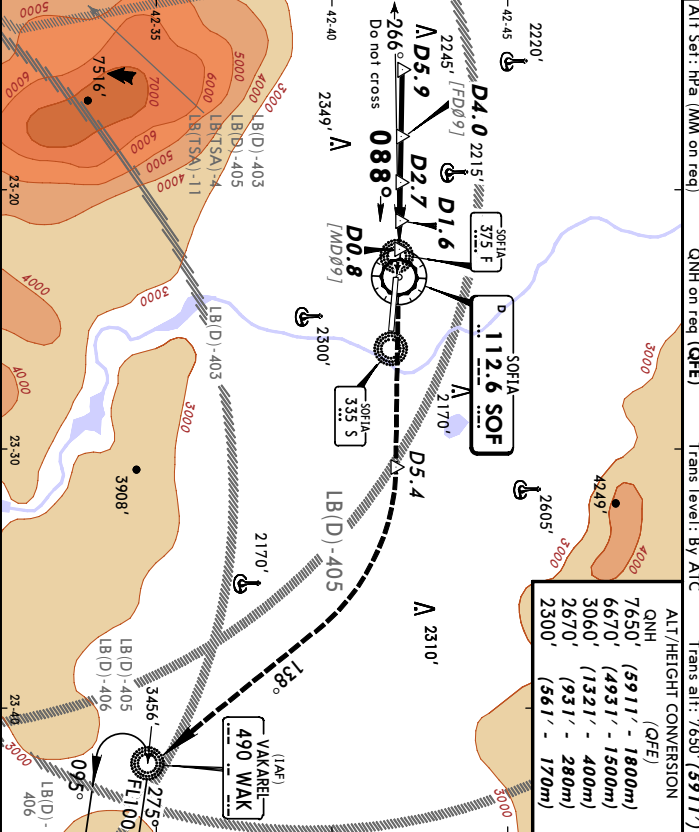
ATIS	124.05	SOFIA Approach (R)	123.7 120.2	SOFIA Tower	118.1 120.4
VOR	Final	Minimum Alt	MDA(H)	Apt Elev	1742'
SOF	Apch Crs	D4.0	2240' (501')	RWY	1739'
112.6	088°	3060' (1321')			

ATIS	124.05	SOFIA Approach (R)	123.7 120.2	SOFIA Tower	118.1 120.4
VOR	Final	Minimum Alt	MDA(H)	Apt Elev	1742'
SOF	Apch Crs	D9.7 SOF	2140' (398')	RWY	1742'
112.6	273°	4420' (2678')			



MISSED APCH: Climb STRAIGHT AHEAD to 3060' (1321'). At D5.4 turn RIGHT onto track 138° climbing to 6670' (4931') to WAK NDB for another approach.

MISSED APCH: Climb STRAIGHT AHEAD (MAX climb gradient) to 2140' (398') or D0.6 SOF/F Lctr, whichever is later, then turn RIGHT (MAX IAS 195 KT / MAX RADIUS 1.9 NM) onto 160° S lctr climbing to FL 100. When crossing R-058 SOF turn LEFT to intercept R-114 SOF to WAK NDB and hold.



Gnd speed-Kts		70	90	100	120	140	160	HIALS-11	
Descent Gradient 5.24% or		372	478	531	637	743	849	Refer to Missed Apch above	
Descent angle [3.00°]								MAP at D2.8 SOF	
STRAIGHT-IN LANDING RWY 09									
CIRCLE-TO-LAND Not authorized South of apt									
MDA(H) 2240' (501')									
ALS out									
A								Max Kts	MDA(H)
B	VIS 1800m							100	2700' (958')
C	VIS 2200m							135	2700' (958')
D	VIS 2000m							180	2800' (1058')
	VIS 2400m							205	4000m

Gnd speed-Kts		70	90	100	120	140	160	HIALS-11	
Descent Gradient 5.24% or		372	478	531	637	743	849	Refer to Missed Apch above	
Descent angle [3.00°]								MAP at D2.2 SOF	
STRAIGHT-IN LANDING RWY 27									
CIRCLE-TO-LAND Not authorized South of apt									
MDA(H) 2140' (398')									
ALS out									
A								Max Kts	MDA(H)
B	VIS 1800m							100	2700' (958')
C	VIS 2200m							135	2700' (958')
D	VIS 2000m							180	2800' (1058')
	VIS 2400m							205	4000m

LBSF/SOF
SOFIA

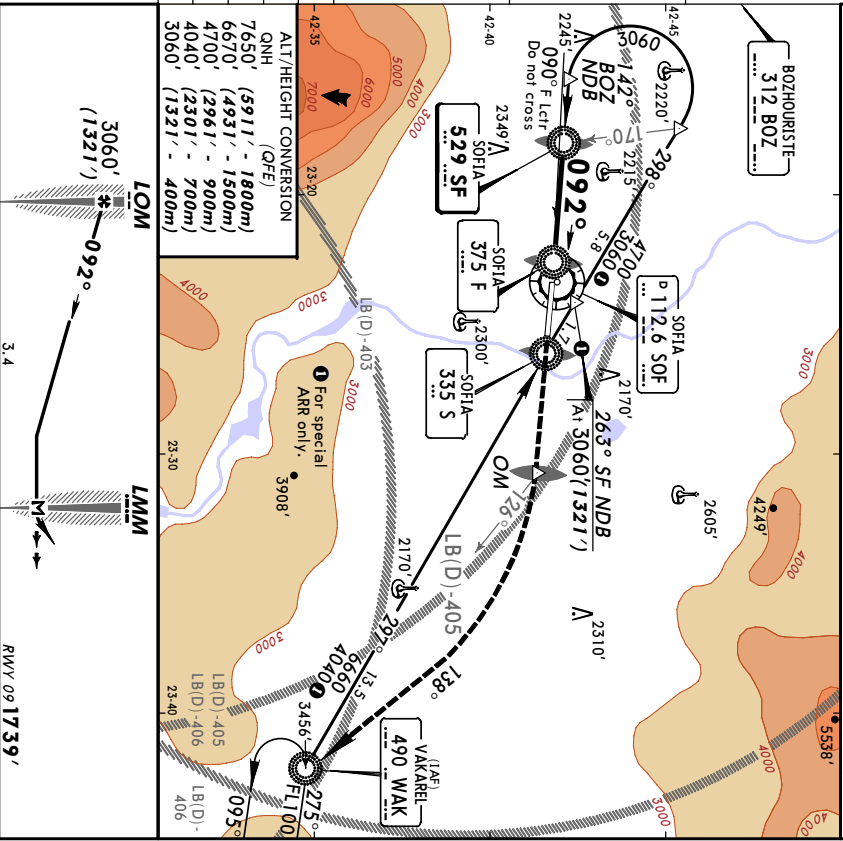
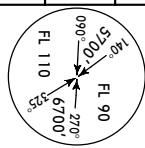
12 DEC 03 (6-1) **JEPPESSEN** **ETH 25 Dec**

SOFIA, BULGARIA
NDB Rwy 09

ATIS	124.05	SOFIA Approach (R)	123.7 120.2	SOFIA Tower	118.1 120.4
NDB	Final	Minimum Alt	MDA(H)	Apt Elev	1742'
SOF	Apch Crs	LOM	2140' (401')	RWY	1739'
	092°	3060' (1321')			

MISSED APCH: Climb STRAIGHT AHEAD to 3060' (1321'). After OM/126° to WAK turn RIGHT onto track 138° climbing to 6670' (4931') to WAK NDB for another approach.

Alt Ser: hPa (MM on req) QNH on req (QFE) Trans level: By ATC Trans alt: 7650' (5911')



GRD SPEED-KTS

70	90	100	120	140	160
5.2%	369	474	577	737	845

DESCENT GRADIENT 5.2% 369 474 577 737 845

MAP at LMM

STRAIGHT-IN LANDING RWY 09

CIRCLE-TO-LAND
 Not authorized South of apt

MDA(H) 2140' (401')

ALS out

Max Kts	MDA(H)	HAAS
100	2700' (958')	3060' (1321')
135	2700' (958')	2000m
180		
205	2800' (1058')	4000m

CHANGES: See other side.

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LBSF/SOF
SOFIA

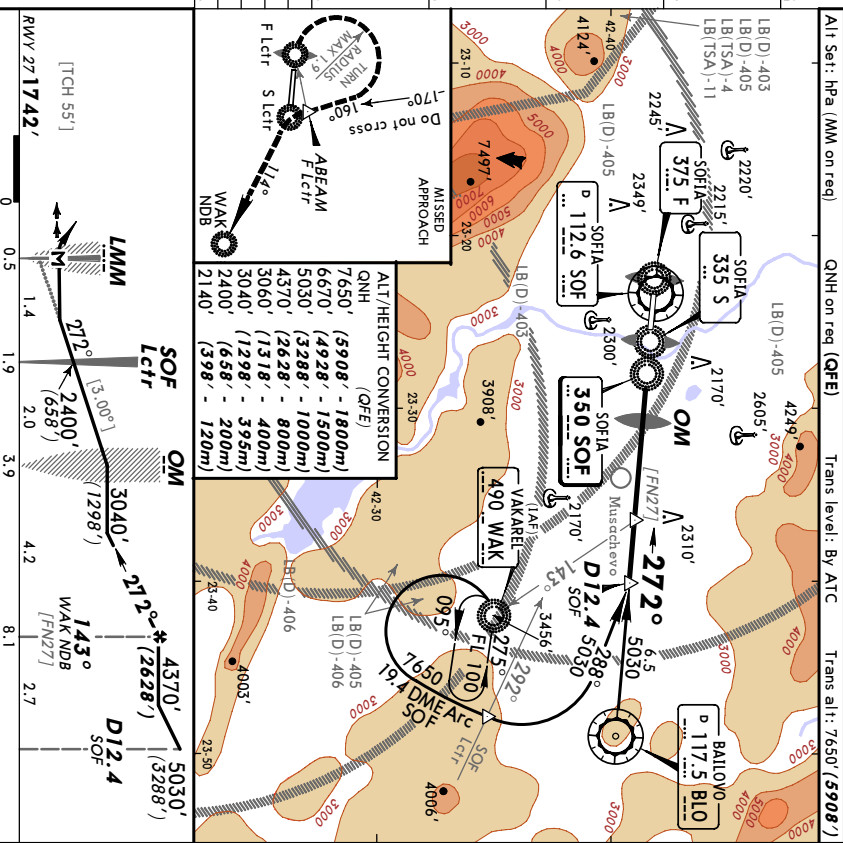
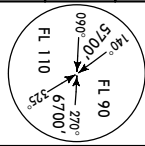
12 DEC 03 (6-2) **JEPPESSEN** **ETH 23 Dec**

SOFIA, BULGARIA
NDB Rwy 27

ATIS	124.05	SOFIA Approach (R)	123.7 120.2	SOFIA Tower	118.1 120.4
Lctr	Final	Minimum Alt	MDA(H)	Apt Elev	1742'
SOF	Apch Crs	43° WAK NDB	2050' (308')	RWY	1742'
	272°	1430' (2628')			

MISSED APCH: Climb STRAIGHT AHEAD (MAX climb gradient) to 2140' (398') or F Lctr, whichever is later, then turn RIGHT (MAX 1AS 195 KT/MAX RADIUS 1.9 NM) onto 160° S Lctr climbing to FL 100. When passing ABEAM F Lctr turn LEFT to intercept 114° WAK NDB to WAK NDB and hold.

Alt Ser: hPa (MM on req) QNH on req (QFE) Trans level: By ATC Trans alt: 7650' (5908')



GRD SPEED-KTS

70	90	100	120	140	160
5.24%	372	531	637	743	849

DESCENT GRADIENT 5.24% or 372 531 637 743 849

MAP at LMM

STRAIGHT-IN LANDING RWY 27

CIRCLE-TO-LAND
 Not authorized South of apt

MDA(H) 2050' (308')

ALS out

Max Kts	MDA(H)	HAAS
100	2700' (958')	1600m
135	2700' (958')	2000m
180		
205	2800' (1058')	4000m

CHANGES: Missed approach.

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