## ENR 2.1 FIR, TMA

		<u> </u>		1
Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
1	2	3	4	5
LUSAKA FIR  Area bounded by lines joining points S 13°00'00" E 022°00'00"; S 13°00'00" E 023°00'00"; S 11°00'00" E 024°20'00"; S 12°00'00" E 025°30'00"; S 12°00'00" E 028°00'00"; S 08°07'00" E 029°53'00"; S	G/A/G	LUSAKA INFOR English HJ OUT- SIDE THESE HOURS VIA LUSAKA CONTROL	6952.0 KHZ	1) VDF available 2) Selcal not avble 3) ATS STNS avble on notified freqs as relay units during their hrs of service 4) Except when authorised no aircraft to be operated in this airspace unless twoway radio contact is main-
08°11'32" E 030°46'16" (Intersection of boundaries of the Democratic Republic of Congo, Tanzania and Zambia) and along the Tanzania/Zambia border up to S 09°22'00" E 033°00'00" then along Malawi/Zambia border up to S 14°00'00" E 033°15'00" then along Mozambique/Zambia border up to S 15°37'55" E 030°24'57" then along Zimbabwe/Zambia border up to S 17°48'08" E 025°15'52" then along Namibia/Zambia border up to S 17°39'00" E 023°26'00" then along Angola/Zambia border up to point of origin.  UNL FL145 Class: A  FL145 GND Class: C  FL145 GND Class: G	LUSAKA ACC	LUSAKA CONTROL English H24	120.500 MHZ AREA CTRL FLIGHT INF SERVICE ADVISORY SERVICE 8888.0 KHZ REGIONAL NETWORK 8873.0 KHZ REGIONAL NETWORK 6586.0 KHZ REGIONAL NETWORK 6915.0 KHZ SUBREGION NETWORK	tained with ATC.
LUSAKA UPPER CONTROL AREA (UTA) Area bounded by lines joining points S 17°25'00" E 023°04'00" then along the clockwise arc of a circle of 150NM radius centred on S 17°48'45" E 025°49'12" (VOR VLI); to S 12°00'00" E 026°21'00" then along the clockwise arc of a circle of 150NM radius centred on S 12°59'53" E 028°40'00" (VOR VND); to S 10°33'00" E 023°04'00" then	LUSAKA ACC	LUSAKA CONTROL English H24	120.500 MHZ Area/Enroute Control Primary Freqs 8888.0 KHZ 8873.0 KHZ 6586.0 KHZ secondary frequencies	VHF EXTD RANGE 120.500Mhz

_					
	Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
	1	2	3	4	5
	along the clockwise arc of a circle of 150NM radius centred on S 13°15'15" E 031°54'49" (VOR VMF); to to point of origin.  UNL FL245				
	Class: A				
	LIVINGSTONE CTA FLHN1 Area bounded by lines joining points S 17°34'00" E 025°02'00" then along the clockwise arc of a circle of 50NM radius centred on S 17°48'42" E 025°49'11" (VOR VLI); to S 17°02'00" E 026°37'00"; S 17°34'00" E 026°37'00"; S 18°04'00" E 026°36'00" then along Zimbabwe/Zambia border up to S 17°34'00" E 025°01'00" to point of origin. FLHN2 Area bounded by lines joining points S 17°02'00" E 026°41'00"; S 16°27'00" E 026°41'00"; S 17°01'00" E 027°15'00"; S 17°34'00" E 026°37'00" to point of origin.	FLHN ATS	Living- stone Tower English 0500-1600	118.100 MHZ VDF available in approach	Nil
	LIVINGSTONE CTA1  Area bounded by lines joining points S 17°34'00" E 025°02'00" then along the clockwise arc of a circle of 50NM radius centred on S 17°48'42" E 025°49'11" (VOR VLI); to S 17°02'00" E 026°03'00"; S 17°34'00" E 026°37'00"; S 18°04'00" E 026°36'00" then along Zimbabwe/Zambia border up to S 17°34'00" E 025°01'00" to point of origin.    FL245	LIVINGS- TONE APP	Livingstone Approach English 0500-1600	124.300 MHZ	1) VDF AVBLE 2) Except where authorised, no aircraft is to be operated in this airspace unless two way radio contact is mantained with ATC

Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
1	2	3	4	5
FL065 Class: C	-			
FL065 GND Class: G				
Area bounded by lines joining points \$ 17°02'00" E 026°03'00"; \$ 16°27'00" E 026°41'00"; \$ 17°01'00" E 026°37'00" to point of origin.    FL245	LIVINGS- TONE APP	Livingstone Approach English 0500-1600	124.300 MHZ	1) VDF AVBLE 2) Except where authorised, no aircraft is to be operated in this airspace unless two way radio contact is mantained with ATC
LUSAKA TMA FLKK1 Area bounded by lines joining points S 14°00'00" E 029°24'00"; S 14°34'50" E 029°21'28"; S 14°03'09" E 030°17'25"; S 15°10'14" E 029°16'03" then along the clockwise arc of a circle of 50NM radius centred on S 15°19'41" E 028°25'15" (VOR VLS); to S 15°54'35" E 029°03'02" then along Zimbabwe/Zambia border up to S 16°03'04" E 028°51'40" then along the clockwise arc of a circle of 50.07NM radius centred on S 15°19'41" E 028°51'40" then along the clockwise arc of a circle of 50.07NM radius centred on S 15°19'41" E 028°25'15" (VOR VLS); to S 15°31'25" E 027°34'56"; S 14°38'32" E 027°44'16"; S 13°51'19" E 027°31'44"; S 13°39'14" E 027°33'14"; S				1) Except when authorised no aircraft to be operated in this airspace unless two-way radio contact is maintained with ATC.

Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
1	2	3	4	5
14°01'00" E 027°46'04"; S 14°00'00" E 029°24'00" to point of origin. FLKK3 Area bounded by lines joining points S 16°08'07" E 028°11'16"; S 17°01'00" E 027°15'00"; S 16°27'00" E 026°41'00"; S 15°32'42" E 027°35'19" then along the counter clockwise arc of a circle of 50.01NM radius centred on S 15°19'41" E 028°25'15" (VOR VLS); to to point of origin. LUSAKA TMA 2 Area bounded by lines joining points S 16°08'27" E 028°12'36" then along the counter clockwise arc of a circle of 50.03NM radius centred on S 15°19'41" E 028°25'15" (VOR VLS); to S 16°09'06" E 028°34'23"; S 16°35'25" E 028°35'08" then along Zimbabwe/Zambia border up to S 16°49'25" E 028°08'19" to point of origin.	LUSAKA APP	LUSAKA APP	121.300 MHZ	1) VDF AVBLE
Area bounded by lines joining points S 14°00'00" E	LOOAIVA AI I	English H24	APPROACH DEPARTURE TMA CTRL.	2) Except when authorised no

Name	Unit muscial	Call sign lan- guages area	<b>5</b> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Lateral limits	Unit provid-	and condi-	Frequency	Remarks
Vertical limits	ing service	tions of use	and Purpose	
Class of Airspace		hours of service		
1	2	3	4	5
029°24'00"; S 14°34'50" E	LUSAKA	LUSAKA AP-	120.100	aircraft to be
029°21'28"; S 14°03'09" E	RADAR	PROACH	MHZ RADAR	operated in this
030°17'25"; S 14°43'58" E	IVADAIX	RADAR	SURVEIL-	airspace unless twoway
030°17'51"; S 15°10'14" E		English	LANCE.	radio contact is
029°16'03" then along the clock-		0400 - 1800	RADAR VEC-	maintained with
wise arc of a circle of 50NM ra-		0400 - 1000	TORS. ASSIS-	ATC.
dius centred on S 15°19'41"			TANCE TO	3) All ACFT
E 028°25'15" (VOR VLS);			AIRCRAFT IN	operating with in FL
to S 15°54'35" E 029°03'02"			EMERGENCY.	245/GND in this
then along Zimbabwe/Zam-			Linertoerton	airspace shall be
bia border up to S 16°03'04" E				allocated:-
028°51'40" then along the clock-				a) Northbound ACFT
wise arc of a circle of 50.07NM				ODD IFR levels.
radius centred on S 15°19'41"				b) Southbound
E 028°25'15" (VOR VLS); to				ACFT EVEN IFR
S 15°31'25" E 027°34'56";				levels from 152000S
S 14°38'32" E 027°44'16";				to 155953S
S 13°51'19" E 027°11'44"; S				4) No IFR flights
13°39'14" E 027°33'14"; S				below FL080
14°01'00" E 027°46'04"; S				
14°00'00" E 029°24'00" to point				
of origin.				
FL245				
FL145				
Class: A				
Glass. 7 C				
FL145				
FL075				
Class: C				
FL075				
GND				
Class: G				
LUSAKA TMA 2				1) VDF AVBLE
Area bounded by lines joining				2) Except when
points S 16°08'27" E 028°12'36"				authorised no
then along the counter clock-				aircraft to be
wise arc of a circle of 50.03NM				operated in this
radius centred on S 15°19'41"				airspace unless two way
E 028°25'15" (VOR VLS); to				radio contact is
S 16°09'06" E 028°34'23"; S				maintained with
16°35'25" E 028°35'08" then				ATC.
along Zimbabwe/Zambia border				
up to S 16°49'25" E 028°08'19" to				
point of origin.				
FL245				
FL145				
Class: A				
			I	I

Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
1	2	3	4	5
FL145 FL075 Class: C FL075				
GND Class: G				
LUSAKA TMA 3  Area bounded by lines joining points S 16°08'07" E 028°11'16"; S 17°01'00" E 027°15'00"; S 16°27'00" E 026°41'00"; S 15°32'42" E 027°35'19" then along the counter clockwise arc of a circle of 50.01NM radius centred on S 15°19'41" E 028°25'15" (VOR VLS); to to point of origin.  FL245 FL145 Class: A  FL145 FL075 Class: C  FL075 GND Class: G				1) VDF AVBLE 2) Except when authorised no aircraft to be operated in this airspace unless two way radio contact is maintained with ATC.
MFUWE TMA  Area bounded by lines joining points S 12°58'00" E 030°18'40"; S 13°01'38" E 031°05'37" then along the clockwise arc of a circle of 50NM radius centred on S 13°15'43" E 031°54'49" (VOR VMF); to S 13°00'02" E 032°43'30"; S 13°00'00" E 032°56'20"; S 14°00'00" E 032°35'03"; S 14°00'00" E 032°18'40" then along the clockwise arc of a circle of 50NM radius centred on S 13°15'43" E 031°54'49" (VOR VMF); to S 14°05'22" E 031°47'07"; S 14°43'58" E 030°17'51"; S 14°03'09" E	MFUWE APP.	MFUWE APP. English HJ	120.700 MHZ AP- PROACH/DE- PAR TERMI- NAL AREA CONTROL 6915.0 KHZ Sub-regional network 6952.0 KHZ Domestic flight information ser- vice network	1) VDF AVAILABLE 2) Except when authorised, no aircraft to be operated in this airspace unless two-way radio contact is mantained with Air Traffic Control.

Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
1	2	3	4	5
030°17'25"; S 13°34'46" E 031°07'01" then along the clockwise arc of a circle of 50NM radius centred on S 13°15'43" E 031°54'49" (VOR VMF); to S 13°21'57" E 031°03'56"; S 13°18'19" E 030°16'59" to point of origin.  FL245 FL145 Class: A  FL145 FL075 Class: C  FL075 GND Class: G				
NDOLA TMA  Area bounded by lines joining points \$ 14°01'00" E 027°46'04"; \$ 13°39'14" E 027°33'14"; \$ 13°12'58" E 027°28'56"; (WPT IBGOX); \$ 12°00'07" E 027°25'23"; \$ 12°00'00" E 028°00'00"; \$ 11°56'00" E 028°02'00"; \$ 11°48'00" E 028°08'00"; \$ 11°48'00" E 028°28'55" then along the clockwise arc of a circle of 50NM radius centred on \$ 12°59'53" E 028°40'00" E 029°29'00"; \$ 12°10'51" E 028°51'01"; \$ 11°28'00" E 029°29'00"; \$ 12°42'05" E 029°27'51" then along the clockwise arc of a circle of 50NM radius centred on \$ 12°59'53" E 028°40'00" (VOR VND); to \$ 12°42'05" E 029°27'51" then along the clockwise arc of a circle of 50NM radius centred on \$ 12°59'53" E 028°40'00" (VOR VND); to \$ 12°54'27" E 029°30'54"; \$ 12°57'59" E 030°18'33"; \$ 13°18'19" E 030°16'59"; \$ 13°14'30" E 029°29'43"; \$ 14°00'00" E 029°24'00" to point of origin.  FL245  FL145	NDOLA APP	Ndola Approach English 0400-1800 and O/R	119.700 MHZ VDF avbl.	1) VDF AVAILABLE 2) Except when authorised, no aircraft to be operated in this airspace unless two way radio contact is maintained with Air Traffic Control. 3) Northbound ACFT odd IFR Flight Levels within the Ndola/Lusaka TMA from 155953S to 152000S a) Southbound ACFT even IFR Flight Levels within the Ndola/Lusaka TMA from 155953S to 152000S 4) No IFR flights permitted below FL 080 in these airspaces

		v		
Name Lateral limits Vertical limits Class of Airspace	Unit provid- ing service	Call sign lan- guages area and condi- tions of use hours of service	Frequency and Purpose	Remarks
1	2	3	4	5
Class: A  FL145  FL075  Class: C  FL075  GND				
Class: G				
Solwezi TMA  Area bounded by lines joining points S 12°00'07" E 027°25'23"; S 12°34'21" E 027°28'56"; (WPT IBGOX); S 13°12'58" E 027°18'27"; S 13°39'14" E 027°33'14"; S 13°51'19" E 027°11'44"; S 13°19'37" E 026°50'05" then along the clockwise arc of a circle of 70NM radius centred on S 12°10'14" E 026°21'49" (NDB SW); to S 11°45'23" E 025°12'52" then along FIR boundary with Congo DR up to point of origin.    FL245	SOLWEZITWR	Solwezi Approach English 0400-1600 and O/R	123.925 MHZ	Contiguous with: Ndola TMA Linked to Lusaka TMA by a corridor.