



Arcala Missionary Adventure to South Sudan
Nov 13-27 2013



Project Goodwill and Z81X

- Project Goodwill
- South Sudan and previous operations
- Z81X Missionaries
- Stations
- Crunching the Pileups
- Juba Scenes
- Dec 14th
- Epilogue



Project Goodwill

- Missionary low-band DXpedition - Give more than you take
- Establish solid regulatory radio amateur framework and frequency table to South Sudan
 - IARU, ARRL, Z6-experience
- Foundation for locals to carry on ham radio
 - Training, station equipment (ref. Z6, over 50 hams)
- Serve the spectators: 50k total QSOs, 1500 on 160M, 2500 on 80M, high NA/JA content



Good Will was truly needed



Pekka Haavisto, Minister
Ambassador of East Africa



Ministry of Telecommunications
Creating the rules



University of Juba, communication education


Republic of South Sudan
 Ministry of Telecommunications & Postal Services
 Office of the Undersecretary

Our Ref: RSS/ MoT&PS/JUSO/ AR/1/13 Date: 09th Oct, 2013

To: H.E. Ambassador, SOUTH SUDAN EMBASSY
 Subject: **Invitation for one Day Radio Spectrum/Regulatory Workshop for Amateur**

The Ministry of Telecommunications and Postal Services in coordination with Amateur Radio invites the below mentioned Amateur Radio experts for a one day workshop in Juba.

1	Name	Nationality	Passport no	Expire Date
1	Hans Peter Blondeel Timmerman	Dutch	NRHF8D1R9	24/11/2014
2	Matti Juhani Laine	Finnish	PI/8337271	10/01/2018
3	Olli Matti Rissanen	Finnish	PF5548958	18/11/2016
4	Wayne Allen Mills	US Citizen	488298045	05/08/2023
5	Pertti Paavo Simovaara	Finnish	PG7559999	29/10/2017
6	Veijo Lauri Henrik Kontas	Finnish	PC5822958	31/08/2016
7	Horst Dietmar Kasper	German	CCMBJJC8 24	28/07/2018

Regards,
 Eng. Juma Stephen Lugga
 Undersecretary, Ministry of Telecommunications and Postal Services

Cc: Hon Minister Cc: DiGen Telecom Cc: File

P.O. Box 33 Juba, South Sudan Email: info@motps.gov.ss Website: www.motps.gov.ss


Republic of South Sudan
 Ministry of Telecommunications & Postal Services
 Office of Director General of Telecommunication

PROVISIONAL LICENSE

Date: 26/April/2013.....

Type of license: ...AMATEUR RADIO CALL SIGN Z81X.....

This license has been issue toOLLI MATTI RISSANEN.....

For the purpose of SERVICES IN THE SOUTH SUDAN.....

Address:ROCK CITY HOTEL (JUBA)

The license is issued in accordance with Articles 28 & 29 of National Communications Authority (NCA)-2012.

The validity is from ... 6/April/2013.....to... 6/April/2014.....

Issued by: Eng. Virginio Kanyi Amungu
 Deputy Director,
 Telecommunications Licensing & Standardization, Directorate of Telecommunications.

Verified by: Eng. Thomas Gatkuoth Nyak
 Director,
 Directorate of Telecommunications.

Approved by: Eng. Meshack Madol Yol.
 Director General,
 Directorate of Telecommunications;

Z81X License

Invitation



South Sudan

- Separation from Anglo Egyptian Sudan 1955
- Gained independence July 9, 2011
- Area 619000km² (2x Finland)
- Capital Juba
- 8M people, mainly Dinkas and Nuers
- Official language English
- GDP 2000\$/person

Main radio amateur activities

- STOR Jul 20-Aug 9, 2011
 - Team of 13 people
 - 120k QSOs
- Active hams: Diya Z81D and Massimo Z81B



Z81X Missionaries

Martti and Olli had already done two expeditions for all the preparatory work

- Amateur promotion
- License
- Operating site
- QSOs



Z81Xtremes in November 2014



Low Bands

- Two stations to maximize the audience on 160m and 80m



- Stations were separated by 100m
- NA and JA beverages were absolutely needed



Titanex
on 160m



18m spiderpole
on 80m



40m – 10m



- Mosley MA5B for 20-10m
- UA2FZ Mono band yagi for 10m (CQWW)



Other Key Accessories



WLAN to
UN site

1.5kW amp and
filters for beves



NA and JA
Beverages
300m long

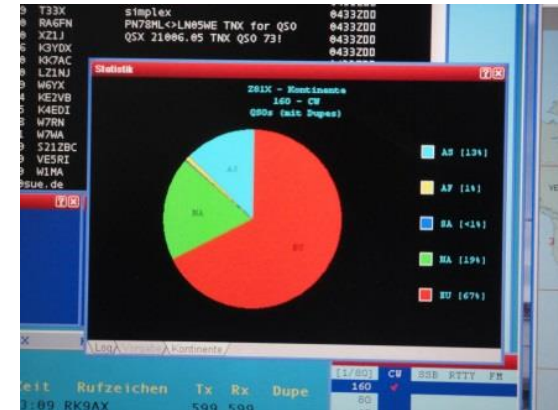
Local bulls
stampeded
them down
twice



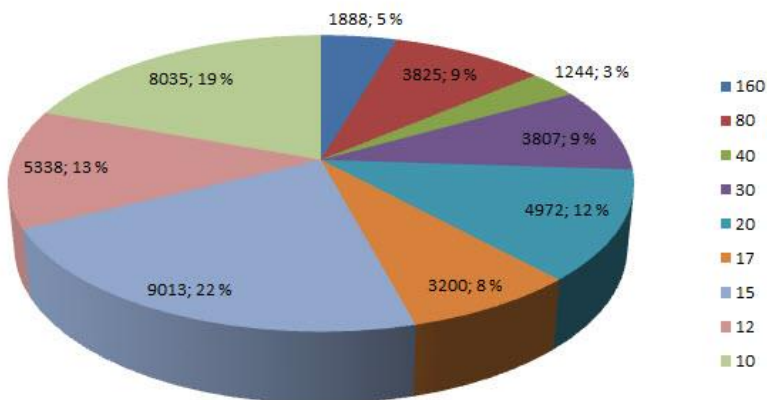
Lightning arrestors

Crunching the Pileups

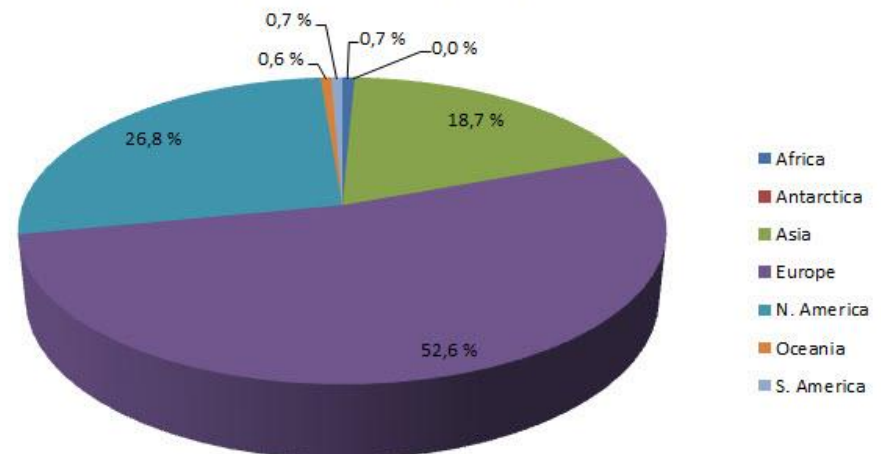
- Z81X in Apr-May totaled 19783 Qs with 10539 uniques
- November Z81X totaled 21312 QSOs with 7348 uniques
- Total: 41322 Qs with 18112 uniques
 - 1786 new DXCC, 2686 new band, 223 new mode, 463 new band+mode
- CQWW: 40m (826k), 15m (1.8M) and 10m (1.5M)



Band Breakdown



Continental Breakdown



Juba Scenes



Hot and crowded



Stadium for great parades



The Nile – wide and swift

Boiling Under the Calm Surface

- Dec 14th changed the seemingly peaceful country
- Expelled Vice President Riek Machar (Nuers) began an alleged mutiny against President Salva Kiir (Dinkas)

South Sudan quashes coup attempt, says President Kiir



President Salva Kiir: "The government is in full control of the security situation in Juba"

- Ceasefire reached Jan 24th , rebels facing charges
- Over 10000 casualties, 200000 homeless and refugees



Epilogue

- Promote Amateur Radio in all possible forms
 - In Z8 had to help with the rules, education programs, equipment
- Getting to Z8
 - Diplomatic support and minister level invitation is needed
 - Local help is needed for import/export, license, accommodation, supplies, money, etc.
- Importing equipment is not typically included in license and it can be a major road-block
 - Freight, DHL, Hand carry
- Interband interference is never good enough
 - Had to increase distance, UN coax rolls saved the trip !
- GPs and 1.5kW amps are needed for 80/160
- Beverages with preamps/filters are crucial
- Get out of the country before war breaks out...



Thank You
We'll be back



Smile.
You're in Kenya.

