Rural Training Center-Thailand: Emergency Communications

Propose EmComm Operating Modes / Capabilities

The RTC-TH EmComm operating modes are presented below based on a single HAM (unless others can help). Modes to the right contain all components of the previous smaller mode unless otherwise stated.
Note: TBP = To be purchased. Items in parentheses indicate items of limited quantity to be assigned as needed, or items to be made or acquired.

	Last updated: 22 Apr 2011	Backpack→	Bicycle→	Sparky	Sam	Wang Wa base
	Operators	1	1	1-2	1-2	1-2+
	Est Max Operating range	3-5 km	6-12 km	20-40 km (80 km 1-way max)		
	Est Operating Duration	1 day	1-2 days	1-2 days	1- 2 weeks	1-2 mos+
Radio	FSR	**TBP**	**TBP**	**TBP**	**TBP**	**TBP**
	Yaesu FH-912	**X** (if available)	**X** (if available)	**X**	**X** (if available)	**X**
	ICOM 2200-T	-----	-----	**X** (if available)	**X** (if available)	**X** (EchoLink)
				Generally Sparky = VHF, Sam or base = HF.		
	ICOM 718	-----	-----	**X** (if available)	**X** (if available)	**X**
Power supply	AA packs	**X**	**X**	**X**	**X** (if available)	**X**
	NiMH	**X**	**X**	**X**	**X** (if available)	**X**
	1 gel pack	-----	**X** (if available)	**X** (if available)	**X** (if available)	**X** (kept here)
	6 VDC deep cycle wet	-----	-----	**X (2)**	**X (2)**	
	12 VDC AGM	-----	-----	**X**		**X**
	Small Solar PV panel		**X**	Future plans for back up on all 3		
	Roof mounted solar PV			Future plans for solar PV panel on all 3		
	Jatropha SVO generator	-----	-----	-----	-----	**TBP**
	Optional 220 VAC hook up	Kit: Extension cord, surge protector, battery charger; NO DIRECT connect of radios				
Antennas	FH-912 whip and tiger tail	**X**	**X**	**X**	**X** (if available)	**X** (if available)
	Button magnet mount	-----	**X**	**X**		
	NMO magnet mount				**X**	
	102" whip			**X**	**X**	
	Slim Jim / J-pole				**X (**Arrow J-pole)	**X**(Thai SlimJim)
	450 Window SlimJim/J-pole	**(X)**	**(X)**	**X**		
	Hentenna					**X**
	4-Yagi VHF	**X** (if available)	**X** (if available)	**X** (if available)	**X** (if available)	**X**
	Slingshot			**X** (small)	**X** (big)	
	1-wire HF			**X**	**X**	
	HF multi mobile			**X**	**(X)**	
	Super Antenna MP-1				**X**	**X**
	Spectral Isopole 144					**X**
	Diamond CP-6					**X**
	SkyLoop					**(X)**
Other	Clinometers	1 axis	1 axis	2 axis	2 axis	
	GPS	**X**	**X**	**X**	**X**	
	Weather station	**X** (if available)	**X** (if available)	Kestrel 4500	Kestrel 3000	Davis
	Wind Indicator	**X** (if available)	**X** (if available)	Streamer	Streamer	Davis
	Ground Panels	**X** (if available)	**X** (if available)	**X**	**X**	
	White strobe	**X** (if available)	**X** (if available)	**X**	**X**	
	Camera	**X** (if available)	**X** (if available)	**X**	**X**	
	Binoculars	compact	compact	regular	regular	
	Basic LZ Survey Kit	**X**	**X**	**X**	**X**	**X**
	Inflatable raft				**X**	**X**
	Fire extinguisher			**TBP**	**TBP**	**TBP**
	First Aid kit	**X**	**X**	**X**	**X**	**X**
	Excavating tools			**X**	**X**	
	Extension ladders				**X**	**X**
	Portable toilet				**X**	
	Solar shower				**X**	
	Solar cooker	**portable**	**portable**	**portable**	**(box)**	**(box)**
	Solar still					**(X)**
	Sleeping bags	**(X)**	**(X)**		1 bunk	1 bunk
	Tent	**(X)**	**(X)**		(sleep in Sam)	(sleep in station)
	Mosquito net	Built into tent			**X**	
	Local area maps	**X**	**X**	**X**	**X**	**X**
	Basic survey kit	**X**	**X**	**X**	**X**	

Helicopter Landing Zone Survey Kit			
Landing Zone Scout Report	Site criteria guidelines		
	Access (primary and secondary)		
	Documentation	Topo Map	
		Google Earth photo-map	
		Latitude/Longitude	
		LZ Sketch map	
DATA NEEDED FOR REPORT		**Survey Method**	
Location	Latitude/Longitude	□ GPS (specify geoid)	
		□ Topo Map grid coordinates	
		□ Google Earth grid coordinates	
	Altitude	□ GPS elevation	
		□ Topo map contours	
		□ Local altimeter from bench mark	
	Map	□ Topo Map	
		□ Google Earth Photo	
		□ LZ sketch map	
Land Zone Sketch Map and Photos	Size	Dimensions	
		Sketch map with bounding land marks	
	Slope Max slope for LZ is ___° or ___% slope	□ Stake and Pace method	
		□ Leveling stick method	
		□ Sight level	
		□ Clinometer	
	Vertical obstructions	Estimating height by sight ruler; esp. note overhead wires	
	Landing Pad	Sketch map;	
	Safety zone	Sketch map	
	Wind indicator	Sketch map	
	Landing approach /	Sketch map	
	Departure path	Magnetic compass ***(Do Not correct for True North)***	
	Access routes	Primary; label on map; take photos	
		Secondary; label on map; take photos	
	Existing facilities	Show on sketch map; take photos.	
Sketch Mapping	Materials	Graph paper	
	Equipment	Ruler, protractor, magnetic compass, long tape measure, calculator	
	Measuring Azimuth	Magnetic compass	
	Distance measuring	□ Long Tape	
		□ Distance by pacing	
	Estimating height	□ Sight ruler method	
		□ Clinometer method	

Equipment / Materials Needed	
GPS	GPS unit (w/ spare batteries); optional 12 VDC power cord, ext. antenna.
Magnetic compass	Separate mounted units in Sparky & Sam; pocket compass.
Drafting kit	Pencil, sharpener, eraser, protractor, ruler/scale, graph paper, pocket calculator
Long measuring tape	10 m and 33 m tapes
Leveling Survey Kit	Sighting poles, string/level, rubber mallet, notepad, clinometer, sight level
Topo Map	If available or make rough sketch map if needed.
Google Earth (map)	Plot map for each alternate operating site and LZ.
Graph paper pad / ruler/ pencil / eraser	Make LZ map with approach paths
Landing Zone Guidelines	Check list
Ground to Air Panels	Panel set, stakes, cord, rubber mallet.
Ground to Air Hand Signals	Reference card; LED markers; reflector paddles.