Radio used during tests: Icom IC-765
Wattmeter / SWR meter used during tests: MFJ-986 antenna tuner in COAX 1 DIRECT position
Power used during tests: 100 Watts
Full photo album link: https://app.box.com/s/wqqgwdkfyk7h1tiaydooam6tyh3lquit

25/04/2015

First brief test with antenna still down (as per photo from 1 to 3 in folder "2015-04-25 - Antenna completed..."):

Band	Band begin frequency	SWR	Band middle frequency	SWR	Band end frequency	SWR	Min. SWR frequency	SWR	Final adjust length each element side	Notes
	Power reading		Power reading		Power reading		Power reading			
40m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			
30m	10,100	1,13:1	10,125	1,3:1	10,150	1,44:1	Not read	Not read	None	None
	Not read		Not read		Not read		Not read			
20m	14,000	1,85:1	14,175	1,37:1	14,350	1,1:1	Not read	Not read	None	None
	Not read		Not read		Not read		Not read			
17m	18,068	1,09:1	18,118	1,19:1	18,168	1,3:1	Not read	Not read	None	None
	Not read		Not read		Not read		Not read			
15m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			
12m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			
10m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			

25/04/2015

At this stage, we decided to move the adjusting stubs as follows before repeating the test with the antenna still down and to read the frequency of minimum SWR:

30m: Shortened 1,0 centimeter
20m: Lengthened 1,5 centimeters
17m: Shortened 1,0 centimeter

Second test results with the antenna still down (as per photo from 1 to 3 in folder "2015-04-25 - Antenna completed..."):

Band	Band begin frequency	SWR	Band middle frequency	SWR	Band end frequency	SWR	Min. SWR frequency	SWR	Final adjust length each element side	Notes
	Power reading		Power reading		Power reading		Power reading			
40m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			
30m	10,100	1,22:1	10,125	1,31:1	10,150	1,41:1	10,050	1,11:1	-1 cm.	Little effect Minimum SWR frequency very low
	Not read		Not read		Not read		Not read			
20m	14,000	1,52:1	14,175	1,22:1	14,350	1,18:1	14,295	1,14:1	+1,5 cm.	None
	Not read		Not read		Not read		Not read			
17m	18,068	1,09:1	18,118	1,18:1	18,168	1,25:1	17,990	1:1	-1 cm.	Little effect Minimum SWR frequency very low
	Not read		Not read		Not read		Not read			
15m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			
12m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			
10m	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested	Not tested		None
	Not read		Not read		Not read		Not read			

25/04/2015

At third test we decided to fully raise the antenna and to finally read all bands and power output. No other adjustments were made:

Third test results with the antenna full raised and turned to a clear direction (as per photo from 8 and 9 in folder "2015-04-25 - Antenna completed..."):

Band	Band begin frequency	SWR	Band middle frequency	SWR	Band end frequency	SWR	Min. SWR frequency	SWR	Final adjust length each element side	Notes
	Power reading		Power reading		Power reading		Power reading			
40m	7,000	1,26:1	7,100	1:1	7,200	1,21:1	7,100	1:1		Good result
	95 Watts		96 Watts		96 Watts		96 Watts			
30m	10,100	1,41:1	10,125	1,4:1	10,150	1,39:1	10,163	1,33:1	-1 cm.	Acceptable Minimum SWR frequency is a bit high
	102 Watts		102 Watts		101 Watts		101 Watts			
20m	14,000	1,8:1	14,175	1,5:1	14,350	1,28:1	14,495	1,18:1	+1,5 cm.	Usable. Little effect moving tubings Minimum SWR frequency very high
	95 Watts		91 Watts		93 Watts		100 Watts			
17m	18,068	1:1	18,118	1:1	18,168	1,12:1	18,083	1:1	-1 cm.	Good result This band seems to be quite flat
	98 Watts		98 Watts		96 Watts		98 Watts			
15m	21,000	1,1:1	21,225	1,2:1	21,450	1,2:1	20,900	1:1		Usable: Not well resonating in the high portion Minimum SWR frequency very low
	98 Watts		97 Watts		90 Watts		98 Watts			
12m	24,890	1,8:1	24,940	1,8:1	24,990	1,8:1	25,725	1,45:1		Not resonating at all Minimum SWR frequency very high
	35 Watts		35 Watts		39 Watts		95 Watts			
10m	28,000	1,85:1	28,500	1,82:1	29,000	1,65:1	29,830	1,2:1		Not resonating at all. Min. SWR freq. very high Double resonance at 27,530 (1,4:1 at 90 Watts)
	59 Watts		72 Watts		83 Watts		96 Watts			

17/05/2015

Fourth test with antenna full raised and turned to a clear direction

For this test we have done the following adjustments:

1: Moved the coaxial cable from the side of the feed line to the top of the boom as per photograph that you sent me

2: Adjusted 20 meters by extracting other 3 cm. (total is now +4,5 cm.) on each side of the element

3: Adjusted again 30 meters by extracting 0,5 cm. (total is now -0,5 cm.) on each side of the element

Band	Band begin frequency	SWR	Band middle frequency	SWR	Band end frequency	SWR	Min. SWR frequency	SWR	Final adjust length each element side	Notes
	Power reading		Power reading		Power reading		Power reading			
40m	7,000	1,18:1	7,100	1:1	7,200	1,3:1	7,100	1:1		Good result, but it seems that the antenna moved slightly down on this band
	95 Watts		98 Watts		97 Watts		98 Watts			
30m	10,100	1,31:1	10,125	1,26:1	10,150	1,24:1	10,165	1,22:1	-0,5 cm.	Acceptable. Frequency in band moved down, but minimum SWR is still at the same frequency
	100 Watts		100 Watts		100 Watts		100 Watts			
20m	14,000	1,7:1	14,175	1,3:1	14,350	1,1:1	14,384	1,1:1	+4,5 cm.	Total element lengthening is now 4,5 cm. The band went down, but still not enough
	95 Watts		100 Watts		100 Watts		100 Watts			
17m	18,068	1:1	18,118	1:1	18,168	1,1:1	18,085	1:1	-1 cm.	Worse result. Resonance seems to have become worse even if nothing has been touched today
	86 Watts		92 Watts		96 Watts		86 Watts			
15m	21,000	1:1	21,225	1,19:1	21,450	1,19:1	20,995	1:1		Better behaviour Minimum SWR frequency still a bit low
	96 Watts		98 Watts		95 Watts		96 Watts			
12m	24,890	1,45:1	24,940	1,48:1	24,990	1,49:1	24,345	1,3:1		Still resonating very badly in band. Min. frequency very low. Little effect moving coax
	60 Watts		52 Watts		50 Watts		96 Watts			
10m	28,000	1:1	28,500	1,22:1	29,000	1,98:1	28,100	1:1		Better behaviour. Min. frequency still a bit low Double resonance is gone away
	98 Watts		96 Watts		78 Watts		98 Watts			