Surface Accuracy of VLBA Antennas

Design Estimates (VLBA project book, 1988)				
Main refl. rms (microns)	Subrefl. rms (microns)	Total rms (microns)	Efficiency 7mm (%)	Efficiency 3mm(%)
175 ^{m1}	100 ^{s1}	200	64	42
175	150 ^{s2}	230	61	36
175	250 ^{s3}	305	53	21
275 ^{m2}	100	292	56	23
275	150	313	50	18
275	250	372	43	11
Measurements.				
- -	Sub.rms ^{Faro} (microns)	Tot.rms ^{Holo} (microns)	Eff ^{TP} 7mm, %	Eff ^{TP} 3mm, % (Ant)
-	-	340	53	12 (PT)
			53	18 (LA)
			53	18 (FD)
			52	14 (KP)
			47	12 (OV)
			44	13 (NL)
			50	17 (MK)
			38	- (HN)
			42	- (SC)
			32	- (BR)

m1: Main ref. panel setting errors, no wind/gravity.
m2: Main ref. spec under precision conditions.
s1: Subreflector design goal.
s2: Subreflector hard specification.
s3: Subreflector prototype measurement.
Faro: FARO arm metrology of subreflector
Holo: Holography of (Main + subreflector) combined
TP: Total-power single dish efficiency measurement