

12 METER MILLIMETER WAVE TELESCOPE

MEMO No. 195

TO: 12M WORKING GROUP

FROM: L. J. KING

SUBJECT: 12M WEIGHT AND MOMENTS OF INERTIA

THE FINAL ANALYTICAL STRUCTURAL WEIGHT AND MOMENTS OF INERTIA ARE SUMMARIZED AS FOLLOWS:

(1) WEIGHT OF STRUC SUB-ASSEMBLIES & EQUIPMENTS,

HUB	=	5670.	LBS
INNER REFLECTOR	=	5480.	"
OUTER REFLECTOR	=	4160.	"
CTWT. STRUC	=	10290.	"
FEED/APEX STRUC	=	1530.	"
RX MOUNTING STR	=	1040.	"

SUB TOTAL OF STRUC	=	28170.	LBS
COUNTER WEIGHT	=	25010.	"
SURF PANELS W/SUPPTS	=	2540.	"
RECEIVERS	=	2400.	"
FOCAL EQUIPMENT	=	300.	"

TOTAL WT ON ELEV. AXIS = 58420. LBS

(2) AXIS MOMENTS OF INERTIA OF ELEV STRUC ABOUT,
(REFLECTOR POINTED AT ZENITH)

ELEV AXIS	=	129800.	SLUG-FTSQ.
CROSS ELEV AXIS	=	121200.	"
AXIMUTH AXIS	=	97700.	"