THE ESSCO CONTRACT

Points for discussion - June 16th '81
by JWF June 12th '81

1. Introduction.

The team of JWF, WGH, J. Marymor and D. Webb will (we hope) be starting soon to agree the contract with ESSCO. Our request to ESSCO has been as simple as possible, to expedite the stage when we have an offer and a price. There are several points on which we ourselves must agree and which then we shall try to get into the contract in a satisfactory form. This note lists these points and suggests what our position should be. If I have missed points, please add them when we discuss my list.

2. Technical Points.

(a) We have to agree the method of measurement and the data reduction method. I propose we accept in essence what is spelled out in ESSCO D81-15 (our Memo # 42) pages 1 to a point 7 lines from the end of page 13 (where the line starts "It is necessary now ...) I assume this is the way ESSCO will reply to us. Their RMS is a "path-length" RMS with the mean removed. Those who feel responsible and able to comment on this, please do so. IT IS IMPORTANT. Lee King has already checked the mathematics (and found errors in Table 2 which I propose to pass on to ESSCO before they reply to us).

The measuring machine is described in the May 21st letter to WGH copy to me. I have asked that this be added to Memo # 42 - it also will reappear in the ESSCO reply to us. So also check the measuring plan. (Note to G. Peery - please have Sidney look at this with a critical eye.)

The end point of this will be that we shall include (probably by reference) the details of measurement and what we mean by RMS in the final contract.

(b) There are a few questions about the panel shapes and reference points. ESSCO offers a 1.2 meter center hole. (4 feet) I propose we accept this. See Figure 7 of D81-15, this shows the outer support point of the outer panel a long way from the edge. I propose we ask ESSCO to add another support point near the panel edge. But equally well we could

add this extra panel-support ourselves. I suggest we talk to ESSCO before deciding. Lee King is worried that we shall not have good enough data on where the panel edges really are. I do not fully get this. Would WGH please also discuss with Lee.

(c) I missed a point in (a) above. In their letter (Memo # 41) ESSCO offer to measure with one point per 290 cm^2 (45 sq. inches). To decide whether this is enough we need to get at the correlation length of ESSCO panels. Has anyone got any advice. If not, I propose for the present to accept ESSCO. (S. Smith should look at this point - does he not have measurements of our ESSCO panel ? If so, S von H could see if his grid looks OK)

19 inch² inner panels
42 inch² outer panels

3. General points

(a) Should we not buy two spare panels, one inner and one outer ? This comes from J. Ralston - I like it.

(b) WGH has asked for drawings in the following terms:-

(i) Configuration, design and manufacturing drawings used by the supplier in the performance of the work and fully describing the work shall be provided to NRAO.

(ii) Shop drawings of all fabricated components and assemblies which the subcontractor or his supplier may require or use to illustrate any part of the work shall be supplied to NRAO.

I don't know whether Essco will like this. Shall we push?

(c) Shall we plan to have a full- or part-time inspecting and approving engineer in the ESSCO plant? See Article 3 of the contract "boiler-plate"

(d) Are we looking for any special warranty on performance or lifetime ? If so, what ? Is there any point in asking ESSCO to hold the molds unchanged for (say) 5 years ?

(e) Are we considering buying the panel mounting brackets from ESSCO ? I am assuming the answer is NO.

no target holes