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DANCE Memo #76

To: Distribution
From: N. Fisher
Date: 18 June 1968
Subject: Comparison of Radar Scale Factors in SUNDANCE and GSOP

Table I and Table II below contain respectively the radar scale factors suggested for inclusion in SUNDANCE by L. J. Johnson in a memorandum dated 12/1/67 and the actual radar scale factors in SUNDANCE. It should be noted that the recommended scale factors for the LR range and the actual ones are different.

TABLE I (GSOP)

<u>Equipment</u>	<u>Parameter</u>	<u>Bias Count</u>	<u>Factor</u>
LR	V_{XA} scale factor	12, 288.2	-0.6440 ft/sec/count
LR	V_{YA} scale factor	12, 288.2	1.212 ft/sec/count
LR	V_{ZA} scale factor	12, 288.2	0.8668 ft/sec/count
LR	Range, low scale factor	none	1.079 ft/count
LR	Range, high scale factor	none	5.395 ft/count = (5)(1.079)
RR	Range rate	17, 000	-0.6278
RR	Range, low scale	none	9.38 ft/count
RR	Range, high scale	none	75.04 ft/count = (8)(9.38)

TABLE II (SUNDANCE)

<u>Equipment</u>	<u>Parameter</u>	<u>Bias Count</u>	<u>Factor</u>
LR	V _{XA} scale factor	12, 288. 2	-0. 6440 ft/sec/count
LR	V _{YA} scale factor	12, 288. 2	1. 212 ft/sec/count
LR	V _{ZA} scale factor	12, 288. 2	0. 8668 ft/sec/count
LR	Range, low scale factor	none	1. 0795 ft/count
LR	Range, high scale factor	none	(4. 9977)(1. 0795) ft/count = 5. 39501715 *
RR	Range rate	17, 000	-0. 6278
RR	Range, low scale factor	none	9. 38 ft/count
RR	Range, high scale factor	none	75. 04 ft/count = (8)(9. 38) **

The range is multiplied by 4. 9977 and is then multiplied by the low scale factor in Pinball.

** The range is multiplied by 8 and is then multiplied by the low scale factor in Pinball.