Order	In Register	Description
1 (ca 3)	6	Puts $v_n \times 2^{-3}$ in AC.
2 (ts 4)	7	Stores $v_n \times 2^{-3}$ in 4.
3 (mh 0)	8	Forms $\zeta v_n \times 2^{-6}$ in AC.
4 (sl 4)	9	Forms $\zeta v_n \times 2^{-2}$ in AC.
5 (ad 2)	10	Forms $(\zeta v_n + \frac{1}{2} y_n) \times 2^{-2}$ in AC.
6 (mh 1)	11	Forms $\omega h(\zeta v_n + \frac{1}{2} y_n) \times 2^{-3}$ in AC.
7 (su 4)	12	Forms $-\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right] \times 2^{-3}$ in AC.
8 (ts 3)	13	Stores $-\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right] \times 2^{-3}$ in 3.
9 (ca 1)	14	Puts $\frac{1}{2} \omega h$ in AC.
10 (sr 4)	15	Forms $\frac{1}{2} \omega h \times 2^{-4}$ in AC.
11 (ad 0)	16	Forms $(2\zeta + \frac{1}{2} \omega h) \times 2^{-4}$ in AC.
12 (mh 3)	17	Forms $-(2\zeta + \frac{1}{2} \omega h)\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right] \times 2^{-7}$ in AC.
13 (sl 4)	18	Forms $-(2\zeta + \frac{1}{2} \omega h)\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right] \times 2^{-3}$ in AC.
14 (su 2)	19	Forms $-\left\{y_n + (2\zeta + \frac{1}{2} \omega h)\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right]\right\} \times 2^{-3}$ in AC.
15 (mh 1)	20	Forms $-\omega h\left\{y_n + (2\zeta + \frac{1}{2} \omega h)\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right]\right\} \times 2^{-4}$ in AC.
16 (sl 1)	21	Forms $-\omega h\left\{y_n + (2\zeta + \frac{1}{2} \omega h)\left[v_n - \omega h(\zeta v_n + \frac{1}{2} y_n)\right]\right\} \times 2^{-3}$ in AC.

Order	In Register	Description
17 (ad 4)	22	Forms $v_n \times 2^{-3}$ - $\omega h\left\{y_n + (2\mathfrak{S} + \frac{1}{2}\omega h)\left[v_n - \omega h(\mathfrak{S} v_n + \frac{1}{2} y_n)\right]\right\} \times 2^{-3}$ $= v_{n+1} \times 2^{-3}$ in AC.
18 (ts 3)	23	Stores $v_{n+1} \times 2^{-3}$ in 3.
19 (ad 4)	24	Forms $(v_n + v_{n+1}) \times 2^{-3}$ in AC.
20 (mh 1)	25	Forms $\frac{1}{2}\omega h(v_n + v_{n+1}) \times 2^{-3}$ in AC.
21 (ad 2)	26	Forms $\left[y_n + \frac{1}{2}\omega h(v_n + v_{n+1})\right] \times 2^{-3} = y_{n+1} \times 2^{-3}$ in AC.
22 (ts 2)	27	Stores $y_{n+1} \times 2^{-3}$ in 2.
23 (sl 3)	28	Forms y_{n+1}.
24 (qd 4)	29	Displays y_{n+1} and stores it in 4.
25 (sp 6)	30	Next order is taken from 6, repeating the process.

Signed G. Cooper

Approved R. R. Everett

GC/aec

att: Display Program Number II

cc: C. Adams
G. Sumner
R. Murch
H. Ziegler
D. Israel

Register #	Contents	Order
0	(FF) $\zeta x2^{-3}$	damping ratio
1	(FF) $\omega hx2^{-1}$	frequency-increment product
2	(FF) $y_n x2^{-3}$	reset to $y_0 x2^{-3}$
3	(FF) $v_n x2^{-3}$	reset to $v_0 x2^{-3}$
4	(FF) temporary	
5		
6	ca 3	1
7	ts 4	2
8	mh 0	3
9	sl 4	4
10	ad 2	5
11	mh 1	6
12	su 4	7
13	ts 3	8
14	ca 1	9
15	sr 4	10
16	ad 0	11
17	mh 3	12
18	sl 4	13
19	su 2	14
20	mh 1	15
21	sl 1	16
22	ad 4	17
23	ts 3	18
24	ad 4	19
25	mh 1	20
26	ad 2	21
27	ts 2	22
28	sl 3	23
29	qd 4	24
30	sp 6	25 etc., repeating #1
	Reset PC to 6	