k	G_k		
0	1		
1	$\sin x$		
2	$\sin^2 x$		
3	$\sin^3 x$		
4	$\sin^4 x$		
5	$\sin^5 x$		
6	$\sin^6 x$		
7	$\sin^7 x$		
8	$\sin^8 x$		
9	$\sin^9 x$		
10	$\sin^{10} x$		
11	$\sin^{11} x$		
12		$\cos\lambda$	$\cos\theta$
13		$\cos\lambda$	$\sin\theta$
14	$\sin x$	$\cos\lambda$	$\cos\theta$
15	$\sin x$	$\cos\lambda$	$\sin\theta$
16	$\sin^2 x$	$\cos\lambda$	$\cos\theta$
17	$\sin^2 x$	$\cos\lambda$	$\sin\theta$
18	$\sin^3 x$	$\cos\lambda$	$\cos\theta$
19	$\sin^3 x$	$\cos\lambda$	$\sin\theta$
20	$\sin^4 x$	$\cos\lambda$	$\cos\theta$
21	$\sin^4 x$	$\cos\lambda$	$\sin\theta$
22	$\sin^5 x$	$\cos\lambda$	$\cos\theta$
23	$\sin^5 x$	$\cos\lambda$	$\sin\theta$
24	$\sin^6 x$	$\cos\lambda$	$\cos\theta$
25	$\sin^6 x$	$\cos\lambda$	$\sin\theta$
26	$\sin^7 x$	$\cos\lambda$	$\cos\theta$
27	$\sin^7 x$	$\cos\lambda$	$\sin\theta$
28	$\sin^8 x$	$\cos\lambda$	$\cos\theta$
29	$\sin^8 x$	$\cos\lambda$	$\sin\theta$
30	$\sin^9 x$	$\cos\lambda$	$\cos\theta$
31	$\sin^9 x$	$\cos\lambda$	$\sin\theta$
32	$\sin^{10} x$	$\cos\lambda$	$\cos\theta$
33	$\sin^{10} x$	$\cos\lambda$	$\sin\theta$
34	$\sin^{11} x$	$\cos\lambda$	$\cos\theta$
35	$\sin^{11} x$	$\cos\lambda$	$\sin\theta$

k	G_k		
36		$\cos^2\lambda$	$\cos 2\theta$
37		$\cos^2\lambda$	$\sin 2\theta$
38	$\sin x$	$\cos^2\lambda$	$\cos 2\theta$
39	$\sin x$	$\cos^2\lambda$	$\sin 2\theta$
40	$\sin^2 x$	$\cos^2\lambda$	$\cos 2\theta$
41	$\sin^2 x$	$\cos^2\lambda$	$\sin 2\theta$
42	$\sin^3 x$	$\cos^2\lambda$	$\cos 2\theta$
43	$\sin^3 x$	$\cos^2\lambda$	$\sin 2\theta$
44	$\sin^4 x$	$\cos^2\lambda$	$\cos 2\theta$
45	$\sin^4 x$	$\cos^2\lambda$	$\sin 2\theta$
46	$\sin^5 x$	$\cos^2\lambda$	$\cos 2\theta$
47	$\sin^5 x$	$\cos^2\lambda$	$\sin 2\theta$
48	$\sin^6 x$	$\cos^2\lambda$	$\cos 2\theta$
49	$\sin^6 x$	$\cos^2\lambda$	$\sin 2\theta$
50	$\sin^7 x$	$\cos^2\lambda$	$\cos 2\theta$
51	$\sin^7 x$	$\cos^2\lambda$	$\sin 2\theta$
52	$\sin^8 x$	$\cos^2\lambda$	$\cos 2\theta$
53	$\sin^8 x$	$\cos^2\lambda$	$\sin 2\theta$
54		$\cos^3\lambda$	$\cos 3\theta$
55		$\cos^3\lambda$	$\sin 3\theta$
56	$\sin x$	$\cos^3\lambda$	$\cos 3\theta$
57	$\sin x$	$\cos^3\lambda$	$\sin 3\theta$
58	$\sin^2 x$	$\cos^3\lambda$	$\cos 3\theta$
59	$\sin^2 x$	$\cos^3\lambda$	$\sin 3\theta$
60	$\sin^3 x$	$\cos^3\lambda$	$\cos 3\theta$
61	$\sin^3 x$	$\cos^3\lambda$	$\sin 3\theta$
62	$\sin^4 x$	$\cos^3\lambda$	$\cos 3\theta$
63	$\sin^4 x$	$\cos^3\lambda$	$\sin 3\theta$
64		$\cos^4\lambda$	$\cos 4\theta$
65		$\cos^4\lambda$	$\sin 4\theta$
66	$\sin x$	$\cos^4\lambda$	$\cos 4\theta$
67	$\sin x$	$\cos^4\lambda$	$\sin 4\theta$
68		$\cos^5\lambda$	$\cos 5\theta$
69		$\cos^5\lambda$	$\sin 5\theta$
70		$\cos^6\lambda$	$\cos 6\theta$
71		$\cos^6\lambda$	$\sin 6\theta$
72		$\cos^7\lambda$	$\cos 7\theta$
73		$\cos^7\lambda$	$\sin 7\theta$
74		$\cos^8\lambda$	$\cos 8\theta$
75		$\cos^8\lambda$	$\sin 8\theta$

Table 1: Geographic Coordinate Functions G_k for foF2 expansion. x: modip, λ: latitude, θ: longitude (Reference: page 18 "Advances in Ionospheric Mapping by Numerical Methods")