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METHODS & DESIGNS

Bigram and trigram frequencies and versatilities in the English language

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A comprehensive count of bigram and trigram frequencies and versatilities was tabulated for words recorded by Kučera and Francis. Totals of 577 different bigrams and 6,140 different trigrams were found. Their frequencies of occurrence and the number of different words in which they appeared are reported in this article.

In recent years the orthographic components involved in letter and word identification have received considerable attention. An important component in some studies has been the positional frequency of letters in the English language (e.g., Mason, 1975); other studies have found that versatility (the number of different words in which letters or letter combinations occur) has affected word processing (e.g., Solso, Topper, & Macey, 1973).

The current research in letter/word processing has required more comprehensive and contemporary measures of the statistical properties of the English language. In the past, several researchers have counted single-letter frequencies (Lysing, 1936; Underwood & Schulz, 1960), bigrams (Underwood & Schulz, 1960; Mayzner & Tresselt, 1965; Topper, Macey, & Solso, 1973), and trigrams (Underwood & Schulz, 1960). These counts, however, have been based on a relatively small sample size and done by hand. Recently, Solso and King (1976) tabulated single-letter frequencies and versatilities based on the Kučera and Francis (1967) norms, which contain about one million words in the English language. The positional frequencies and versatilities have also been recently tabulated for four- and five-letter words (Solso & King, 1976) and for six-, seven-, and eight-letter words (Solso, 1979) based on the Kučera and Francis norms.

In the present paper a comprehensive count of bigram and trigram frequencies and versatilities is reported. It is anticipated that these data will be of interest to those investigators interested in visual information processing, reading skills, memory search, verbal learning, cognitive models, and related areas.

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METHOD

All bigram and trigram frequency and versatility counts were based on the Kučera and Francis (1967) tabulation of about one million words in the English language. The Kučera and Francis words are stored on magnetic tape, and the bigram and trigram counts reported in this paper were processed by means of an IBM 370/145 computer. Approximately 40,000 different words with about a total frequency of one million occurrences were used. In the present analysis, all hyphenated words, words containing apostrophes, and numbers were excluded.

The procedure for counting total bigrams and trigrams was as follows: The word "root" has a frequency of 30/million. The frequency of the bigrams RO, OO, and OT were all increased by 30. In counting, trigrams ROO and OOT were also increased by 30. For the versatility count, the above bigrams and trigrams were increased by one. The word "cocoon" has a frequency of 3/million. In this case the frequency of bigram CO was increased by six, as it appears twice in the word, but the versatility count was increased by only one. The other bigram and trigram frequencies were incremented by three and versatilities by one. The word "ringing" has a frequency of 10/million. In this case the frequency of the bigrams IN and NG and the trigram ING were incremented by 20, and the versatilities incremented by 1. The other bigram and trigram frequencies were incremented by 10 and versatilities by 1. A total of 577 bigrams (out of a possible 676) were found in the sample. The total bigram frequency as determined by summing all bigram frequencies was 3,616,085. The total bigram versatility as determined by summing all bigram versatility was 270,337. However, because these data represent repeated bigram counts in words, a more practical use of the data may be to use the frequency and versatility counts in relation to the total words and total different words in the Kučera and Francis (1967) count. Thus the bigram EX appeared 6,847 times in about one million words and appeared in 556 different words out of about 40,000 words.

A total of 6,140 trigrams (out of a possible 17,574) were found in the sample. The total trigram frequency as determined by summing all trigram frequencies was 2,662,964. The total trigram versatilities was 233,420. As with bigram interpretation, it may be more useful to use the base of a total of one million words and 40,000 different words. Thus, the trigram HRO appeared 1,490 times in about one million words and appeared in 91 different words out of 40,000 words.

The results of total frequency and versatility counts for bigrams and trigrams are shown in Tables 1 and 2.

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Table 1
Bigram Frequency and Versatility

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
AA	46	16	DM	599	77	HB	200	33	LC	303	83	ON	59243	4221	SQ	383	85	WH	14685	187
AB	7938	913	DN	229	64	HC	90	9	LD	10931	362	OU	9879	775	SR	122	38	WI	14814	457
AC	16377	1350	DO	7135	590	HD	63	12	LE	30807	3246	OP	7929	703	SS	14014	1429	WK	57	17
AD	15919	971	DP	24	10	HE	121957	1720	LF	1991	97	OQ	40	13	ST	40310	3255	WL	517	73
AE	314	97	DQ	67	3	HF	79	25	LG	205	55	OR	45347	2608	SU	10387	796	WM	49	14
AF	2580	270	DR	3585	334	HG	11	7	LH	77	24	OS	10332	871	SV	41	24	WN	3385	159
AG	7393	752	DS	4451	425	HH	39	12	LI	22510	2627	OT	15593	808	SW	1144	162	WO	8820	292
AH	433	120	DT	69	25	HI	31931	1084	LK	1033	105	OU	35195	1533	SY	1728	209	WP	53	8
AI	12887	840	DU	4447	347	HJ	1	1	LL	22685	1803	OV	6922	491	SZ	18	5	WR	1231	101
AJ	353	23	DV	607	64	HK	9	8	LM	1102	134	OW	12981	619	TA	18525	1748	WS	1142	116
AK	4208	341	DW	293	74	HL	515	101	LN	195	52	OX	492	85	TB	1112	34	WT	195	17
AL	36452	2994	DY	2214	156	HM	412	97	LO	13909	1405	OY	1443	145	TC	1521	210	WU	77	15
AM	10303	928	DZ	3	3	HN	971	70	LP	802	83	OZ	179	45	TD	58	13	WW	3	2
AN	71297	3522	EA	26466	1590	HO	19197	1084	LQ	4	3	PA	10963	1034	TE	41918	3925	WY	105	24
AO	187	31	EB	816	199	HP	24	8	LR	422	21	PB	17	10	TF	304	71	WZ	1	1
AP	6610	790	EC	15558	1169	HQ	18	2	LS	4669	476	PC	9	7	TG	68	14	XA	856	69
AQ	59	23	ED	45641	4451	HR	3150	249	LT	3858	376	PD	8	6	TH	133091	1293	XB	2	2
AR	38547	2942	EE	15047	785	HS	451	82	LU	4601	596	PE	16912	1509	TI	42246	4284	XC	896	74
AS	34428	1419	EF	5469	405	HT	5721	291	LV	1120	106	PF	61	15	TJ	1	1	XE	630	90
AT	52140	3633	EG	4003	417	HU	2899	305	LW	527	28	PG	16	8	TK	15	9	XF	19	2
AU	4074	515	EH	892	129	HV	9	3	LY	17183	1686	PH	2975	518	TL	4272	418	XH	131	27
AV	7731	412	EI	6121	389	HW	198	46	LZ	17	11	PI	4894	741	TM	1078	95	XI	1022	118
AW	2482	241	EJ	144	32	HY	1651	238	MA	20065	1679	PJ	4	1	TN	304	65	XL	20	5
AX	731	92	EK	868	80	HZ	12	2	MB	3422	379	PK	32	10	TO	40465	1344	XM	1	1
AY	9427	432	EL	19210	1923	IA	8463	1161	MC	26	16	PL	9374	692	TP	88	21	XN	3	2
AZ	605	130	EM	13072	946	IB	3117	394	MD	15	8	PM	615	24	TR	14258	1579	XO	101	27
BA	6003	741	EN	50685	3626	IC	23524	2193	ME	29184	1727	PN	22	13	TS	11627	1080	XP	2395	166
BB	545	174	EO	2310	230	ID	11884	808	MF	152	22	PO	11965	996	TT	7179	739	XQ	7	3
BC	18	8	EP	6058	584	IE	12936	1443	MG	17	1	PP	5130	483	TU	8369	697	XR	6	1
BD	41	15	EQ	1638	105	IF	7085	463	MH	17	7	PR	15103	1199	TV	5	5	XS	3	1
BE	22104	961	ER	73818	5655	IG	9729	749	MI	11390	1289	PS	1943	298	TW	2667	88	XT	1457	111
BF	1	1	ES	44717	4480	IH	33	14	MK	6	3	PT	3018	345	TY	7102	620	XU	128	17
BG	9	2	ET	15718	1405	II	51	17	ML	174	42	PU	3584	360	TZ	146	55	XV	1	1
BH	9	5	EU	790	155	IJ	35	16	MM	3260	377	PV	1	1	UA	4304	384	XW	13	3
BI	3705	551	EV	9560	507	IK	2137	130	MN	354	53	PW	41	7	UB	3168	365	XX	4	2
BJ	623	29	EW	4891	280	IL	16708	1488	MO	12620	940	PY	339	71	UC	6129	420	XY	84	18
BK	2	1	EX	6847	556	IM	12261	865	MP	7674	824	QL	11	1	UD	3276	354	YA	642	144
BL	8687	1023	EY	6051	329	IN	87713	6604	MR	1404	11	QN	4	2	UE	4803	442	YB	348	36
BM	122	15	EZ	177	59	IO	25140	2270	MS	3441	218	QU	4905	534	UF	665	113	YC	316	96
BN	16	9	FA	6114	436	IP	3196	475	MT	43	11	QV	1	1	UG	5342	295	YD	152	53
BO	7944	724	FB	13	4	IQ	434	56	MU	4593	349	QW	2	1	UH	46	28	YE	4101	215
BP	9	6	FC	3	3	IR	11564	768	MV	4	1	RA	22760	2930	UI	3751	409	YF	29	14
BR	4047	583	FD	3	3	IS	40825	2548	MW	24	4	RB	952	225	UJ	25	11	YG	73	16
BS	1377	211	FE	8426	577	IT	40740	2066	MY	2183	99	RC	3759	387	UK	79	33	YH	50	16
BT	493	39	FF	5183	413	IU	400	111	NA	10892	1423	RD	6835	615	UL	12434	1017	YI	1263	152
BU	8025	552	FG	6	4	IV	9159	782	NB	160	72	RE	65557	4133	UM	4545	628	YJ	2	2
BV	214	9	FH	4	4	IW	23	8	NC	13807	1209	RF	1099	129	UN	15189	1611	YK	39	12
BW	10	4	FI	10041	744	IX	668	51	ND	48318	1558	RG	3320	356	UO	396	77	YL	496	119
BY	5700	77	FJ	2	1	IY	7	5	NE	26640	2259	RH	682	74	UP	5248	350	YM	853	140
CA	18498	1675	FK	5	1	IZ	2288	475	NF	1932	301	RI	24362	2841	UQ	8	5	YN	416	136
CB	6	1	FL	2348	385	JA	916	130	NG	37217	3877	RJ	6	4	UR	18208	1361	YO	5859	106
CC	2359	232	FM	8	7	JB	3	1	NH	366	106	RK	3461	239	US	16462	1402	YP	681	102
CD	14	3	FN	14	6	JD	10	1	NI	12305	1493	RL	3567	289	UT	16289	830	YR	374	90
CE	22238	1461	FO	18199	556	JE	1550	155	NJ	374	57	RM	5654	542	UU	33	7	YS	3290	254
CF	8	1	FR	7750	350	JI	115	33	NK	2223	263	RN	5982	487	UV	88	32	YT	781	69
CH	21166	1561	FS	121	39	JO	2082	150	NL	2675	124	RO	26375	2123	UW	2	2	YU	49	19
CI	8688	910	FT	3046	141	JR	74	1	NM	815	77	RP	1525	240	UX	164	43	YV	7	4
CK	5993	867	FU	3559	398	JU	2411	173	NN	3378	443	RQ	33	15	UY	213	18	YW	235	26
CL	5323	525	FW	19	2	KA	691	192	NO	16622	823	RR	4075	602	UZ	113	31	YY	3	1
CM	24	4	FY	286	82	KB	40	17	NP	206	70	RS	15159	1550	VA	4183	520	YZ	56	15
CN	34	7	GA	5590	655	KC	6	4	NQ	187	46	RT	12440	1040	VC	1	1	ZA	772	177
CO	27186	2345	GB	29	13	KD	26	10	NR	345	87	RU	4494	651	VD	5	2	ZB	7	2
CP	2	1	GD	38	8	KE	10108	876	NS	16608	1901	RV	2197	215	VE	29758	1739	ZE	1950	403
CQ	143	23	GE	13355	1174	KF	109	17	NT	34412	2732	RW	428	61	VI	8788	821	ZF	1	1
CR	5184	689	GF	56	12	KG	75	3	NU	2763	274	RX	11	2	VK	1	1	ZG	6	1
CS	685	106	GG	1104	225	KH	156	42	NV	1602	210	RY	8402	566	VL	5	5	ZH	6	5
CT	13972	1004	GH	9780	437	KI	3885	485	NW	213	56	RZ	30	17	VN	1	1	ZI	471	149
CU	4601	569	GI	5358	597	KJ	17	3	NX	98	9	SA	8635	766	VO	2350	290	ZK	11	4
CW	1	1	GK	4	2	KK	19	9	NY	4139	151	SB	310	66	VP	2	1	ZL	106	37
CY	1162	157	GL	2199	413	KL	535	136	NZ	102	44	SC	5181	809	VR	21	9	ZM	3	3
CZ	15	9	GM	252	50	KM	61	28	OA	2748	343	SD	262	30	VS	37	14	ZO	207	63
DA	5658	554	GN	2178	231	KN	2261	97	OB	3471	335	SE	31168	1898	VT	1	1	ZR	4	3
DB	101	39	GO	5471	353	KO	353	139	OC	5381	634	SF	521	53	VU	82	27	ZS	2	1
DC	74	19	GP	9	8	KP	29	11	OD	6670	540	SG	60	22	VV	2	2	ZT	1	1
DD	1738	211	GR	7307	717	KR	100	43	OE	1551	163	SH	13002	1189	VY	197	18	ZU	29	14
DE	26818	2371	GS	1937	304	KS	1709	247	OF	39344	206	SI	19341	1639	VZ	1	1	ZV	8	2
DF	69	22	GT	645	46	KT	52	15	OG	2943	453	SJ	3	2	WA	18415	593	ZW	5	4
DG	1094	138	GU	2756	350	KU	80	35	OH	843	74	SK	1819	234	WB	64	26	ZY	107	22
DH	151	40	GV	1	1	KV	1	1	OI	3202	345	SL	2536	411	WC	22	7	ZZ	338	78
DI	15960	1782	GW	16	11	KW	94	33	OJ	222	19	SM	2484	423	WD	195	32			
DJ	217	35	GY	559	99	KY	379	96	OK	2937	220	SN	695	140	WE	13559	501			
DK	16	5	GZ	4	1	LA	17871	1977	OL	12763	1381	SO	14045	861	WF	46	14			
DL	1509	279	HA	36624	1244	LB	227	71	OM	20158	1159	SP	6738	750	WG	3	2			

Table 2
Trigram Frequency and Versatility

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
AAA	1	1	ADV	1	1	AKN	52	2	APB	2	2	ATW	4	4	AYW	10	6	BIG	474	16
AAB	1	1	AFA	27	9	AKO	18	11	APD	4	4	ATY	41	8	AZA	57	20	BIJ	1	1
AAC	16	4	AFE	194	24	AKR	3	3	APE	877	98	ATZ	14	5	AZE	133	40	BIK	1	1
AAD	1	1	AFF	668	92	AKS	66	18	APF	2	1	AUA	1	1	AZI	173	30	BIL	1209	146
AAE	1	1	AFG	4	2	AKT	9	3	APG	2	1	AUB	11	8	AZL	2	1	BIM	4	4
AAF	1	1	AFH	1	1	AKU	9	5	APH	432	118	AUC	91	33	AZO	30	11	BIN	512	91
AAH	1	1	AFI	10	8	AKW	9	4	API	363	50	AUD	277	46	AZU	3	2	BID	81	23
AAK	3	1	AFK	5	1	AKY	14	7	APK	5	2	AUE	15	7	AZW	1	1	BIP	4	2
AAM	4	1	AFL	15	5	ALA	572	114	APL	40	20	AUF	11	7	AZY	50	4	BIQ	2	1
AAR	15	3	AFM	1	1	ALB	79	18	APM	6	1	AUG	565	54	AZZ	154	20	BIR	248	38
AAS	1	1	AFO	12	8	ALC	153	39	APN	3	2	AUH	1	1	BAB	455	25	BIS	85	23
AAW	1	1	AFR	151	12	ALD	125	41	APO	250	56	AUI	1	1	BAC	1308	79	BIT	642	85
ABA	157	44	AFS	1	1	ALE	1343	198	APP	2698	243	AUK	3	2	BAD	201	15	BIV	16	3
ABB	136	51	AFT	1452	45	ALF	433	23	APR	87	10	AUL	11	3	BAE	5	1	BIW	9	1
ABC	1	1	AFY	1	1	ALG	45	17	APS	435	46	AUM	232	56	BAF	12	5	BIX	1	1
ABD	14	6	AGA	1390	48	ALH	12	2	APT	373	54	AUN	13	10	BAG	87	18	BIZ	12	3
ABE	179	53	AGD	3	1	ALI	2316	507	APU	10	8	AUN	157	45	BAH	8	6	BJE	619	27
ABH	2	2	AGE	3470	285	ALK	758	45	APY	20	3	AUP	2	2	BAI	34	12	BJU	4	2
ABI	588	111	AGG	303	97	ALL	10153	677	AQU	53	20	AUQ	2	2	BAK	70	13	BKO	2	1
ABJ	5	3	AGH	11	7	ALM	657	41	AQV	1	1	AUR	157	34	BAL	681	107	BLA	555	82
ABL	3513	431	AGI	445	69	ALN	29	9	AQW	2	1	AUS	1430	72	BAM	25	5	BLD	3	1
ABN	6	4	AGL	15	6	ALO	774	75	ARA	1305	186	AUT	944	96	BAN	758	111	BLE	5000	598
ABO	2544	67	AGM	50	12	ALP	63	20	ARB	318	70	AUU	1	1	BAO	1	1	BLI	1507	121

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
ABR	198	34	AGN	264	58	ALR	328	10	ARC	829	126	AUV	3	2	BAP	44	11	BLO	505	69
ABS	349	55	AGO	566	64	ALS	2099	143	ARD	3579	348	AUX	30	8	BAR	726	131	BLU	266	49
ABU	103	25	AGP	6	5	ALT	1083	114	ARE	7663	210	AUZ	1	1	BAS	917	63	BLV	4	1
ABY	85	13	AGR	459	42	ALU	585	35	ARF	85	16	AVA	481	57	BAT	463	86	BLY	847	102
ACA	215	37	AGS	36	11	ALV	112	30	ARG	1293	70	AVE	5717	178	BAU	21	15	BMA	55	5
ACB	6	1	AGU	215	31	ALW	470	6	ARH	6	5	AVI	908	100	BAV	3	1	BME	8	2
ACC	1343	135	AGW	3	2	ALY	300	41	ARI	2290	375	AVL	4	4	BAW	9	5	BMI	57	7
ACE	2339	170	AGY	1	1	ALZ	4	3	ARJ	1	1	AVO	427	53	BAY	90	18	BMU	2	1
ACH	2763	166	AHA	50	16	AMA	473	91	ARK	1379	102	AVR	8	2	BAZ	8	2	BNA	1	1
ACI	583	114	AHC	2	2	AMB	363	79	ARL	1570	90	AVS	1	1	BBA	16	6	BNE	3	2
ACK	2589	270	AHE	114	5	AMC	5	2	ARM	1134	127	AVU	9	5	BBE	153	47	BNO	11	5
ACL	88	22	AHI	11	7	AMD	2	1	ARN	704	89	AVV	1	1	BBI	121	35	BOA	616	78
ACM	1	1	AHJ	1	1	AME	4128	174	ARO	787	65	AVY	155	5	BBL	88	41	BOB	95	9
ACN	7	1	AHK	1	1	AMF	6	2	ARP	237	42	AWA	834	51	BBO	50	14	BOC	8	5
ACO	95	36	AHL	14	5	AMI	1020	135	ARQ	13	8	AWB	8	6	BBR	3	3	BOD	679	35
ACQ	143	23	AHM	20	9	AML	17	7	ARR	1698	195	AWC	3	2	BBS	12	5	BOE	5	3
ACR	482	38	AHN	9	5	AMM	224	66	ARS	1997	139	AWD	9	4	BBU	2	2	BOF	2	2
ACS	15	10	AHO	36	10	AMN	70	8	ART	4588	316	AWE	46	15	BBY	69	11	BOG	24	13
ACT	4437	251	AHR	4	4	AMO	798	61	ARU	13	8	AWF	36	7	BCA	2	2	BOH	19	10
ACU	178	24	AHS	6	6	AMP	1061	120	ARV	180	39	AWH	8	4	BCO	16	6	BOI	57	22
ACW	1	1	AHT	2	2	AMR	12	3	ARW	29	7	AWI	78	12	BDA	2	2	BOL	301	62
ACY	223	32	AHU	1	1	AMS	423	40	ARX	11	2	AWK	56	16	BDI	12	2	BOM	120	13
ADA	294	51	AHV	1	1	AMT	4	4	ARY	2182	144	AWL	95	24	BDO	12	4	BON	341	78
ADB	9	5	AHW	1	1	AMU	114	22	ARZ	13	5	AWM	12	5	BDR	1	1	BOU	486	79
ADC	37	6	AHZ	11	1	AMW	2	2	ASA	134	33	AWN	153	22	BDU	13	5	BOP	4	2
ADD	859	62	AIA	1	1	AMY	31	9	ASB	12	3	AWO	13	3	BEA	767	89	BOR	950	113
ADE	2731	212	AIC	52	13	ANA	945	151	ASC	148	59	AWP	2	1	BEB	1	1	BOS	120	20
ADF	20	5	AID	2538	43	ANB	10	5	ASE	2116	121	AWR	46	5	BEC	1710	29	BOT	997	31
ADG	21	7	AIE	18	6	ANC	3505	337	ASG	2	1	AWS	145	20	BED	647	90	BOU	2140	72
ADH	40	13	AIG	277	21	AND	33778	482	ASH	827	126	AWT	17	6	BEE	2643	28	BOV	302	5
ADI	1328	145	AII	22	2	ANE	987	147	ASI	1261	92	AWW	1	1	BEF	1030	12	BOW	92	23
ADJ	207	31	AIJ	3	2	ANF	20	5	ASK	810	36	AWY	67	3	BEG	735	24	BOX	112	15
ADL	162	31	AIK	6	4	ANG	2332	223	ASL	38	7	AXA	28	5	BEH	430	19	BOY	457	26
ADM	488	45	AIL	1559	146	ANH	37	11	ASM	71	19	AXE	105	17	BEI	771	13	BPA	2	2
ADN	32	9	AIM	397	33	ANI	1748	269	ASN	2	2	AXI	203	31	BEK	4	4	BPE	3	2
ADO	355	58	AIN	5529	300	ANJ	4	3	ASO	707	40	AXL	6	2	BEL	1117	129	BPO	1	1
ADP	1	1	AIP	2	2	ANK	830	93	ASP	256	53	AXN	2	1	BEM	4	4	BPR	3	1
ADQ	66	2	AIR	1537	146	ANL	54	12	ASQ	9	7	AXO	33	7	BEN	436	65	BRA	708	151
ADR	60	35	AIS	362	51	ANM	2	1	ASR	2	1	AXP	33	3	BED	14	1	BRE	585	105
ADS	282	50	AIT	536	43	ANN	1428	153	ASS	3111	298	AXS	3	1	BEP	7	1	BRI	1205	142
ADT	7	1	AIU	1	1	ANO	1019	74	AST	3435	324	AXT	12	4	BEQ	10	3	BRO	1263	129
ADU	229	20	AIV	12	6	ANP	14	1	ASU	526	31	AXW	12	2	BER	2861	269	BRU	262	46
ADV	600	59	AIW	7	1	ANQ	22	8	ASW	2	2	AXY	5	2	BES	663	60	BRY	23	9
ADW	41	9	AIX	1	1	ANS	2394	345	ASY	197	16	AYA	57	21	BET	1292	47	BSB	1	1
ADY	586	19	AIZ	1	1	ANT	4509	581	ATA	364	70	AYB	181	9	BEU	1	1	BSC	62	19
ADZ	1	1	AJA	8	5	ANU	261	37	ATB	3	3	AYC	6	3	BEV	36	10	BSE	419	40
AEA	5	4	AJD	10	1	ANV	39	10	ATC	626	69	AYD	8	5	BEW	20	10	BSI	47	14
AEC	3	3	AJE	16	6	ANW	35	1	ATE	10595	1065	AYE	549	67	BEX	1	1	BSK	5	1
AED	1	1	AJI	2	2	ANX	86	5	ATF	88	6	AYF	10	4	BEY	218	12	BSQ	139	19
AEF	13	3	AJO	311	5	ANY	3410	35	ATH	2144	214	AYG	4	1	BEZ	3	3	BSP	11	3
AEG	16	2	AJU	4	2	ANZ	18	12	ATI	12155	1416	AYH	6	3	BFI	1	1	BST	371	51
AEK	1	1	AKA	45	18	AOD	2	1	ATK	10	4	AYI	342	28	BGR	9	2	BSU	30	6
AEL	44	13	AKD	16	2	AOI	9	3	ATL	1	20	AYL	47	11	BHO	8	4	BSY	12	2
AEM	1	1	AKE	2895	162	AOM	2	1	ATM	2	10	AYM	147	17	BHU	1	1	BTA	181	6
AEU	21	4	AKF	57	3	AOR	37	3	ATN	7	AYN	72	13	BIA	61	25	BTE	47	7
AEP	1	1	AKH	5	4	AOS	82	3	ATO	9	206	AYO	72	16	BIB	93	14	BTF	24	2
AER	77	23	AKI	654	51	AOT	13	4	ATR	2	70	AYR	22	4	BIC	53	22	BTI	9	4
AES	47	11	AKK	2	2	AOU	6	5	ATS	4	67	AYS	1469	70	BID	92	21	BTL	50	6
AET	5	4	AKL	9	5	AOX	1	1	ATT	25	224	AYT	56	6	BIE	73	19	BTR	23	8
AEU	17	3	AKM	1	1	APA	541	41	ATU	1450	98	AYU	2	2	BIF	5	4	BTS	28	2
BTY	4	2	CER	1675	138	CGE	47	17	DAK	3	3	DHO	61	10	DSH	67	15	EBE	116	32
BUA	1	1	CES	3242	244	CGF	95	9	DAL	189	60	DIA	934	131	DSI	17	6	EBI	11	8
BUB	35	8	CET	64	23	CGG	232	17	DAM	373	55	DIB	47	10	DSK	1	1	EBL	18	8
BUC	108	34	CEU	2	1	CGH	63	18	DAN	686	87	DIC	1195	153	DSL	5	4	EBO	113	29
BUD	158	24	CEV	2	1	CGI	85	23	DAP	63	16	DID	1173	18	DSM	10	7	EBR	174	39
BUE	6	6	CEW	4	3	CGK	5	2	DAR	711	47	DIE	1003	92	DSO	131	16	EBS	16	6
BUF	63	14	CEY	14	5	CGL	1677	182	DAS	49	19	DIF	1049	50	DSP	10	6	EBT	35	3
BUG	34	15	CEZ	3	2	CGM	6869	463	DAT	659	60	DIG	157	48	DST	59	27	EBU	89	28
BUH	2	1	CHA	3108	294	CGN	8869	793	DAU	58	11	DII	5	2	DSU	3	1	EBW	1	1
BUI	526	22	CHB	14	6	CGO	496	61	DAV	125	12	DIJ	1	1	DSV	6	1	EBY	63	5
BUK	4	3	CHC	2	1	CGP	277	62	DAW	33	5	DIL	196	45	DSW	2	1	ECA	1439	52
BUL	278	68	CHD	13	5	CGQ	2	1	DAY	2018	40	DIM	169	35	DTA	3	1	ECC	55	15
BUM	56	17	CHE	2951	424	CGR	1737	209	DAZ	20	8	DIN	3266	347	DTH	34	8	ECD	14	3
BUN	174	34	CHF	7	4	CGS	564	51	DBA	13	7	DIO	299	65	DTI	4	1	ECE	1589	98
BUO	5	4	CHG	8	5	CGT	192	35	DBE	17	7	DIP	108	16	DTL	1	1	ECH	676	65
BUR	780	158	CHH	10	4	CGU	4361	175	DBI	9	4	DIR	803	37	DUA	546	28	ECI	1599	99
BUS	703	59	CHI	2509	250	CGV	569	44	DBL	3	1	DIS	3036	491	DUB	22	8	ECK	421	83
BUT	4942	70	CHK	3	3	CGW	153	24	DBO	16	9	DIT	1461	131	DUC	1707	106	ECL	244	81
BUX	3	3	CHL	102	28	CGX	10	4	DBR	1	1	DIU	116	19	DUD	3	3	ECO	2315	140
BUY	119	6	CHM	95	32	CGY	9	5	DBU	32	7	DIV	829	68	DUE	189	13	ECR	501	56
BUZ	23	4	CHN	389	37	CGZ	3	3	DBY	10	3	DIW	1	1	DUF	9	5	ECS	11	3
BVE	7	6	CHO	1549	139	CPS	2	1	DCA	42	8	DIX	21	7	DUG	25	4	ECT	6065	427
BVI	207	3	CHR	473	67	CQU	143	23	DCH	6	1	DIZ	25	9	DUH	3	3	ECU	532	79
BWA	9	2	CHS	16	11	CRA	757	142	DCL	3	1	DJA	19	4	DUI	5	4	ECY	14	2
BWE	1	1	CHT	34	21	CRE	2065	177	DCO	19	6	DJE	12	4	DUK	13	2	EDA	62	27
BWO	1	1	CHU	608	46	CRI	1061	143	DCR	1	1	DJO	25	7	DUL	262	49	EDB	11	6
BYA	2	1	CHV	1	1	CRO	862	127	DCU	3	2	DJU	161	20	DUM	60	19	EDC	17	4
BYE	10	4	CHW	38	14	CRU	292	75	DDA	32	13	DKE	10	2	DUN	52	20	EDD	166	37
BYG	2	1	CHY	44	14	CRY	147	26	DDE	599	54	DKI	4	1	DUO	4	1	EDE	807	103
BYH	2	2	CIA	2050	141	CSI	2	2	DDH	23	4	DKO	2	2	DUP	32	15	EDF	7	4
BYI	1	1	CIB	19	11	CSO	4	2	DDI	474	59	DLA	17	8	DUQ	1	1	EDG	367	40
BYL	13	7	CIC	17	10	CST	10	2	DDL	232	44	DLE	635	115	DUR	827	27	EDH	16	6
BYP	9	4	CID	468	48	CTA	288	65	DDO	12	6	DLI	138	41	DUS	491	28	EDI	1447	181
BYR	30	6	CIE	1281	88	CTE	1493	108	DDR	128	6	DLO	31	8	DUT	117	7	EDL	204	63
BYS	10	6	CIF	316	34	CTF	8	3	DDS	24	2	DLU	8	4	DUV	1	1	EDM	10	6
BYT	12	2	CIG	50	5	CTI	5161	408	DDU	1	1	DLY	677	102	DUY	1	1	EDN	64	18
BYW	1	1	CIL	357	55	CTL	360	15	DDY	72	16	DMA	57	15	DVA	265	12	EDO	204	32
BYZ	7	3	CIM	48	10	CTM	22	4	DEA	1407	72	DME	43	10	DVE	151	28	EDP	1	1
CAB	187	46	CIN	626	120	CTN	7	2	DEB	145	28	DMI	472	38	DVI	161	18	EDR	93	19
CAC	38	14	CIO	359	71	CTO	1065	98	DEC	1074	114	DMO	25	13	DVO	30	6	EDS	367	29
CAD	293	50	CIP	633	57	CTR	451	58	DED	2566	246	DMU	2	1	DWA	127	20	EDT	6	2
CAE	9	3	CIR	314	36	CTS	984	57	DEE	464	31	DNA	17	10	DWE	62	16	EDU	881	53
CAF	53	8	CIS	666	79	CTU	1067	79	DEF	689	83	DNE	172	46	DWH	1	1	EDV	2	2
CAG	116	9	CIT	1204	109	CTW	1	1	DEG	169	16	DNI	29	4	DWI	70	21	EDW	66	8
CAH	2	2	CIU	25	10	CTY	2	1	DEH	6	6	DNU	6	1	DWO	24	13	EDY	277	12
CAI	18	11	CIV	213	14	CUA	10	4	DEI	14	7	DOA	11	4	DWR	5	1	EDZ	1	1
CAK	18	3	CIZ	33	9	CUB	122	17	DEJ	11	5	DOB	6	5	DWY	3	1	EEA	18	5
CAL	4601	482	CKA	106	23	CUD	8	6	DEK	1	1	DOC	301	37	DYA	6	5	EEB	26	6
CAM	1264	61	CKB	25	13	CUE	45	8	DEL	844	133	DOD	24	8	DYB	9	3	EEC	133	18
CAN	3655	162	CKD	7	6	CUF	8	6	DEM	781	93	DOE	494	10	DYE	9	4	EED	1880	108
CAO	2	2	CKE	1048	221	CUI	40	9	DEN	3334	272	DOF	2	2	DYG	2	2	EEE	4	3
CAP	814	98	CKF	8	5	CUL	1456	165	DEO	61	14	DOG	191	22	DYI	81	7	EEF	59	13
CAR	1986	227	CKG	74	2	CUM	276	53	DEP	990	89	DOH	1	1	DYK	10	4	EEG	25	2
CAS	1108	104	CKH	39	11	CUN	22	8	DEQ	126	8	DOI	179	8	DYL	18	4	EEH	9	5
CAT	2544	303	CKI	309	87	CUO	19	7	DER	5347	519	DOL	298	43	DYM	4	3	EEI	113	10
CAU	1365	30	CKJ	2	1	CUP	221	27	DES	2392	264	DOM	604	66	DYN	61	19	EEK	767	37
CAV	87	31	CKL	253	66	CUR	1188	134	DET	782	74	DON	697	76	DYS	34	9	EEL	802	51

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
CAW	2	2	CKM	32	14	CUS	626	68	DEU	16	8	DOO	459	29	DYT	14	1	EEM	1041	30
CAY	28	7	CKN	116	20	CUT	535	57	DEV	1063	58	DOP	94	11	DYW	8	2	EEN	4188	86
CBE	6	1	CKO	48	17	CUU	23	3	DEW	61	13	DOR	209	57	DZE	1	1	EEP	909	72
CCA	212	27	CKP	25	8	CWH	1	1	DEX	97	10	DOS	56	20	DZI	1	1	EER	547	86
CCE	809	57	CKR	8	5	CYA	5	4	DEY	2	1	DOT	57	15	DZY	1	1	EES	524	63
CCH	10	3	CKS	448	103	CYC	68	20	DEZ	14	3	DOU	414	37	EAB	80	32	EET	1364	60
CCI	72	15	CKT	30	4	CYG	1	1	DFA	17	5	DOV	14	6	EAC	2193	71	EEV	23	6
CCL	33	10	CKU	19	4	CYI	1	1	DFI	5	3	DOW	1403	71	EAD	3136	171	EEW	15	5
CCO	639	60	CKV	1	1	CYL	37	4	DFL	3	1	DOX	52	7	EAF	79	23	EEX	2	2
CCR	25	7	CKW	49	15	CYN	22	6	DFO	10	4	DOY	4	1	EAG	212	23	EEZ	81	17
CCU	557	52	CKY	81	21	CYO	1	1	DFR	1	1	DOZ	73	6	EAH	29	4	EFA	27	17
CDO	14	3	CLA	1332	143	CYP	8	2	DFU	33	8	DPA	5	3	EAK	767	95	EFC	1	1
CEA	148	35	CLE	1553	134	CYR	7	4	DGA	4	3	DPE	1	1	EAL	2004	139	EFD	3	3
CEB	3	1	CLI	424	83	CYS	3	1	DGE	928	103	DPO	17	5	EAM	578	78	EFE	732	76
CEC	7	3	CLO	952	95	CYT	10	7	DGH	2	1	DPR	1	1	EAN	1499	103	EFF	1053	57
CED	1513	129	CLU	1030	65	CZA	6	4	DGI	40	10	DQU	67	3	EAP	248	31	EFI	441	57
CEE	213	21	CLY	32	5	CZE	6	2	DGK	3	1	DRA	636	90	EAQ	3	2	EFL	241	20
CEF	71	12	CMA	1	1	CZY	1	1	DGL	4	3	DRE	1209	82	EAR	6423	277	EFO	1332	36
CEG	1	1	CMD	1	1	DAB	81	21	DGM	93	6	DRI	698	77	EAS	3778	196	EFR	104	26
CEH	2	2	CMI	1	1	DAC	30	11	DGR	4	3	DRO	488	79	EAT	3664	229	EFS	33	6
CEI	469	33	CNE	11	2	DAD	26	6	DGU	6	3	DRS	5	1	EAU	350	41	EFT	512	16
CEL	573	89	CNI	23	5	DAE	6	2	DGW	4	2	DRU	222	37	EAV	680	46	EFU	558	69
CEM	273	31	COA	363	53	DAF	1	1	DGY	3	2	DRY	134	16	EAW	14	7	EFY	11	4
CEN	2215	184	COB	38	13	DAG	37	16	DHA	22	9	DSA	2	1	EAZ	3	2	EGA	1064	90
CEO	3	3	COC	121	41	DAH	7	4	DHE	52	17	DSC	30	5	EBA	136	25	EGB	8	2
CEP	883	68	COD	93	16	DAI	176	21	DHI	16	4	DSE	2	1	EBB	11	8	EGE	505	51
EGF	4	3	EMC	2	2	ERJ	5	3	EVU	11	2	FAZ	2	2	FOH	5	3	GDO	31	5
EGG	98	26	EMD	1	1	ERK	95	23	EVV	1	1	FBA	11	2	FOI	26	5	GEA	120	22
EGH	4	3	EME	3066	227	ERL	524	109	EVY	12	4	FBE	1	1	FOL	789	46	GEB	7	4
EGI	893	68	EMI	603	150	ERM	1544	190	EVZ	1	1	FBO	1	1	FON	32	14	GEC	3	1
EGL	59	11	EMK	4	1	ERN	2716	194	EWA	189	46	FCA	1	1	FOO	438	44	GED	1017	147
EGM	23	4	EML	17	6	ERO	584	132	EWB	22	9	FCO	1	1	FOP	1	1	GEE	36	12
EGN	18	7	EMM	71	20	ERP	353	99	EWC	16	4	FDD	3	3	FOR	15353	354	GEF	1	1
EGO	198	43	EMN	69	14	ERQ	1	1	EWD	16	6	FEA	485	40	FOS	46	10	GEG	1	1
EGR	612	66	EMO	1041	115	ERR	818	160	EWE	240	52	FEB	72	6	FOU	1241	36	GEH	7	2
EGS	75	5	EMP	1292	120	ERS	7987	1028	EWF	5	3	FEC	867	57	FOW	3	2	GEI	6	5
EGU	285	31	EMR	1	1	ERT	2137	255	EWH	236	7	FED	382	31	FOX	17	4	GEL	261	39
EGY	45	5	EMS	1112	16	ERU	88	27	EWI	269	37	FEE	1092	26	FOY	5	2	GEM	246	27
EHA	202	28	EMU	29	17	ERV	1713	137	EWL	34	5	FEF	1	1	FRA	783	102	GEN	1984	195
EHE	134	40	EMY	139	12	ERW	223	36	EWM	11	2	FEG	7	3	FRE	1232	104	GEO	333	48
EHF	1	1	ENA	638	116	ERY	2333	110	EWN	8	3	FEI	12	9	FRI	771	64	GEP	3	3
EHH	2	1	ENB	31	17	ERZ	5	4	EWO	48	14	FEK	1	1	FRO	4856	61	GER	1789	218
EHI	351	7	ENC	4264	339	ESA	75	23	EWP	46	3	FEL	685	44	FRU	105	17	GES	1408	144
EHL	15	3	END	3471	315	ESB	32	13	EWR	21	8	FEM	83	8	FRY	3	2	GET	1596	45
EHM	3	3	ENE	2688	313	ESC	675	111	EWS	387	30	FEN	427	48	FSA	1	1	GEU	4	1
EHN	1	1	ENF	73	20	ESD	96	4	EWT	19	6	FER	1933	185	FSE	10	2	GEV	4	3
EHO	147	26	ENG	1230	82	ESE	3351	128	EWU	3	1	FES	404	48	FSH	3	1	GEW	9	5
EHR	10	2	ENH	91	23	ESF	2	1	EWY	2	1	FET	117	23	FSK	4	2	GEY	18	9
EHU	5	5	ENI	963	172	ESG	1	1	EXA	813	54	FEU	20	10	FSO	1	1	GFE	3	2
EHY	3	3	ENJ	179	12	ESH	245	51	EXB	1	1	FEV	28	5	FSP	7	1	GFI	3	1
EIA	6	6	ENK	25	8	ESI	1681	148	EXC	885	70	FEW	634	2	FST	2	2	GFO	19	2
EIB	2	2	ENL	284	34	ESK	76	5	EXE	318	42	FEY	1	1	FTA	8	3	GFR	1	1
EIC	36	8	ENM	13	8	ESL	19	10	EXH	128	25	FFA	146	14	FTE	1824	43	GFU	30	6
EID	35	20	ENN	470	79	ESM	103	23	EXI	514	44	FFB	2	2	FTF	1	1	GGA	23	8
EIE	2	2	ENO	740	69	ESN	16	7	EXL	8	2	FFE	2007	130	FTH	46	4	GGE	606	93
EIF	2	2	ENP	7	4	ESO	340	52	EXO	30	13	FFH	2	2	FTI	54	10	GGH	1	1
EIG	878	67	ENQ	3	3	ESP	1296	94	EXP	2362	163	FFI	1389	92	FTL	47	3	GGI	144	46
EII	5	1	ENR	193	25	ESQ	33	11	EXQ	7	3	FFL	90	29	FTN	8	4	GGL	158	37
EIK	7	3	ENS	2325	289	ESS	7116	841	EXR	6	1	FFM	5	4	FTG	14	5	GGO	4	3
EIL	102	22	ENT	17817	1273	EST	6537	614	EXT	1297	94	FFN	11	3	FTR	1	1	GGR	59	15
EIM	27	17	ENU	246	41	ESU	704	41	EXU	97	13	FFO	362	23	FTS	62	17	GGS	43	7
EIN	1131	99	ENV	153	30	ESV	7	5	EXY	3	2	FFR	23	11	FTU	1	1	GGY	25	10
EIP	13	4	ENW	37	10	ESW	7	1	EYA	26	8	FFS	59	21	FTW	2	2	GHA	55	20
EIR	2721	14	ENY	70	12	ESY	11	4	EYB	13	6	FFT	1	1	FTY	83	8	GHB	163	12
EIS	126	44	ENZ	49	20	ESZ	1	1	EYC	1	1	FFU	45	12	FUC	24	8	GHC	3	1
EIT	503	31	EOC	34	10	ETA	881	102	EYD	8	4	FFY	12	8	FUD	14	5	GHE	392	29
EIV	419	24	EOD	20	6	ETB	19	5	EYE	637	44	FGA	1	1	FUE	26	6	GHF	5	3
EIZ	43	9	EOE	1	1	ETC	272	30	EYH	4	2	FGH	4	2	FUG	49	16	GHG	2	1
EJA	11	3	EOF	27	4	ETE	1816	232	EYI	18	8	FHA	2	2	FUH	2	2	GHI	49	9
EJE	79	13	EOG	54	10	ETF	7	4	EYK	1	1	FHE	1	1	FUJ	3	2	GHK	2	1
EJO	21	9	EOI	4	2	ETH	1784	105	EYL	8	4	FHO	1	1	FUL	1727	206	GHL	182	12
EJU	28	6	EOL	163	28	ETI	1439	180	EYM	18	7	FIA	51	14	FUM	31	10	GHM	25	1
EKA	3	3	EOM	37	7	ETK	2	2	EYN	25	8	FIB	73	10	FUN	611	45	GHN	16	8
EKB	7	3	EON	211	33	ETL	69	10	EYO	185	5	FIC	2246	153	FUR	507	42	GHO	188	17
EKD	2	1	EOP	910	19	ETM	14	3	EYR	1	1	FID	134	28	FUS	304	42	GHP	3	2
EKE	71	16	EOR	475	39	ETN	17	6	EYS	105	27	FIE	966	152	FUT	248	9	GHR	6	1
EKH	2	1	EOS	6	6	ETO	178	53	EYT	7	2	FIF	185	7	FUU	1	1	GHS	31	12
EKI	52	9	EOT	24	7	ETP	4	2	EYV	1	1	FIG	678	29	FUZ	11	3	GHT	5670	258
EKK	2	2	EOU	204	45	ETR	446	110	EYW	6	2	FIK	3	2	FWA	19	2	GHU	7	2
EKL	29	3	EOV	90	2	ETS	716	109	EZA	3	2	FIL	649	69	FYC	1	1	GHW	58	4
EKN	3	3	EOW	17	2	ETT	1678	179	EZE	75	14	FIN	1957	131	FYI	73	32	GHY	1	1
EKO	5	2	EPA	846	65	ETU	409	18	EZI	23	5	FIO	5	2	FYO	1	1	GIA	184	30
EKS	197	7	EPC	2	2	ETV	1	1	EZO	5	3	FIQ	1	1	GAA	1	1	GIB	104	21
EKT	6	2	EPE	638	68	ETW	777	4	EZR	2	1	FIR	2009	60	GAB	31	13	GIC	477	74
EKW	1	1	EPH	250	31	ETY	470	24	EZU	5	2	FIS	289	35	GAC	6	2	GID	45	9
ELA	1064	120	EPI	301	62	ETZ	7	5	EZV	7	1	FIT	360	32	GAD	28	9	GIE	110	28
ELB	25	10	EPK	1	1	EUB	7	4	EZY	1	1	FIV	288	2	GAE	9	3	GIF	74	4
ELC	98	12	EPL	340	40	EUC	3	2	EZZ	9	7	FIX	143	15	GAG	165	24	GIG	21	7
ELD	964	94	EPM	5	2	EUD	33	12	FAB	93	21	FIZ	3	2	GAI	1427	28	GII	1	1
ELE	2116	279	EPN	2	1	EUE	3	3	FAC	2056	77	FJO	2	1	GAK	1	1	GIL	77	28
ELF	1366	25	EPO	576	47	EUG	42	4	FAD	29	6	FKA	5	1	GAL	293	90	GIM	60	11
ELG	40	5	EPP	81	13	EUI	2	2	FAE	2	2	FLA	411	100	GAM	243	31	GIN	1789	199
ELH	10	2	EPR	467	73	EUK	3	1	FAF	4	1	FLE	575	81	GAN	1111	105	GIO	508	30
ELI	2087	252	EPS	191	21	EUL	3	3	FAG	6	2	FLI	232	50	GAP	31	5	GIP	1	1
ELK	22	5	EPT	1372	98	EUM	62	15	FAH	6	3	FLN	1	1	GAR	685	102	GIR	380	14
ELL	3256	385	EPU	239	30	EUN	27	10	FAI	730	49	FLO	578	86	GAS	193	39	GIS	352	65
ELM	93	28	EPW	4	2	EUP	24	11	FAK	13	3	FLU	391	55	GAT	785	136	GIT	68	28
ELN	1	1	EPY	8	3	EUR	345	58	FAL	391	45	FLY	160	12	GAU	53	20	GIU	10	6
ELO	1237	85	EQN	4	2	EUS	46	18	FAM	626	20	FMA	6	5	GAV	306	6	GIV	1062	20
ELP	596	23	EQU	1631	101	EUT	134	28	FAN	188	39	FMI	1	1	GAW	4	3	GIZ	25	13
ELR	6	4	ERA	4215	374	EUV	29	8	FAQ	1	1	FMO	1	1	GAY	37	7	GKI	3	1
ELS	787	100	ERB	192	70	EUX	12	8	FAR	867	48	FNA	1	1	GAZ	106	11	GKO	1	1
ELT	659	44	ERC	857	126	EVA	374	85	FAS	335	33	FNE	12	4	GBA	3	3	GLA	561	54
ELU	73	29	ERD	203	35	EVC	1	1	FAT	410	35	FNI	1	1	GBE	3	2	GLE	586	98
ELV	462	21	ERE	12575	478	EVE	7521	221	FAU	78	19	FOA	80	7	GBO	15	6	GLI	405	66
ELY	2389	217	ERF	728	89	EVI	1147	110	FAV	230	16	FOC	86	15	GBR	1	1	GLO	216	53
ELZ	5	2	ERG	627	112	EVO	366	63	FAW	9	6	FOD	2	2	GBY	7	1	GLU	51	14
EMA	1169	135	ERH	371	27	EVR	4	1	FAX	4	3	FOE	17	3	GDA	3	1	GLY	380	129
EMB	1367	85	ERI	4432	495	EVS	6	4	FAY	25	4	FOG	58	8	GDE	3	1	GMA	41	18

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
GME	180	24	GYP	35	7	HIC	4206	91	HRE	904	40	IAM	339	20	IFU	189	19	INC	3157	227
GMI	3	2	GYR	36	6	HID	98	18	HRI	477	59	IAN	1702	350	IFY	231	65	IND	4249	274
GMS	2	2	GZA	4	1	HIE	519	63	HRM	1	1	IAO	3	3	IGA	358	73	INE	5264	577
GMU	1	1	HAA	5	3	HIF	103	14	HRO	1490	91	IAP	15	6	IGB	12	3	INF	918	121
GNA	230	50	HAB	173	42	HIG	956	29	HRR	1	1	IAR	216	48	IGE	263	53	ING	29764	3393
GNB	1	1	HAC	37	28	HIH	1	1	HRU	158	22	IAS	115	27	IGG	148	37	INH	147	41
GNE	426	50	HAD	5271	26	HII	3	3	HRY	4	2	IAT	1239	169	IGH	5428	255	INI	2097	244
GNI	595	56	HAE	58	16	HIJ	6	3	HSA	4	3	IAU	1	1	IGI	655	52	INJ	115	19
GNM	87	5	HAF	42	14	HIK	19	6	HSC	1	1	IAV	1	1	IGL	10	8	INK	1079	90
GNU	152	41	HAG	44	19	HIL	2049	130	HSE	2	2	IAW	2	1	IGM	39	15	INL	249	25
GNP	3	2	HAH	8	7	HIM	3277	29	HSH	3	3	IAZ	25	5	IGN	1611	127	INM	56	11
GNS	122	7	HAI	455	44	HIN	5126	270	HSI	1	1	IBA	41	15	IGO	102	25	INN	673	81
GNT	28	1	HAJ	4	2	HIO	184	24	HSL	1	1	IBB	56	19	IGP	1	1	INO	328	80
GNU	19	4	HAK	113	21	HIP	968	124	HSO	7	2	IBC	1	1	IGR	95	35	INP	29	6
GOA	114	9	HAL	1086	101	HIQ	2	2	HST	14	7	IBE	628	79	IGS	42	10	INQ	115	17
GOB	6	5	HAM	427	100	HIR	463	54	HTA	10	6	IBI	531	69	IGU	454	31	INR	4	2
GOC	5	4	HAN	4565	247	HIS	12821	65	HTC	6	2	IBL	1164	114	IGY	3	1	INS	3208	320
GOD	383	23	HAO	22	2	HIT	705	63	HTD	1	1	IBN	1	1	IGZ	4	1	INT	6309	475
GOE	102	11	HAP	1093	48	HIU	1	1	HTE	463	68	IBU	31	10	IHA	3	3	INU	847	57
GOG	15	11	HAQ	1	1	HIV	34	12	HTF	87	14	IBR	174	30	IHI	12	6	INV	856	93
GOI	458	14	HAR	2454	253	HIZ	28	12	HTH	33	7	IBS	25	6	IHM	1	1	INW	15	4
GOL	185	20	HAS	2346	47	HJU	1	1	HTI	123	21	IBU	447	41	IHN	1	1	INX	2	2
GOM	19	3	HAT	13066	68	HKA	3	3	HTL	153	14	IBY	7	3	IHO	15	2	INY	104	10
GON	453	62	HAU	116	42	HKE	2	1	HTM	12	3	ICA	5525	576	IIA	6	1	INZ	8	5
GOO	934	25	HAV	4430	30	HKI	1	1	HTN	37	5	ICC	9	5	IIH	1	1	IOA	13	2
GOR	242	45	HAW	105	32	HKO	2	2	HTO	9	4	ICE	2982	154	IIJ	1	1	IOB	1	1
GOS	61	16	HAX	3	2	HLA	12	6	HTR	1	1	ICH	4015	82	IIN	9	3	IOC	27	15
GOT	639	27	HAY	101	22	HLB	9	1	HTS	344	34	ICI	1562	236	IIS	4	3	IOD	382	19
GOU	55	21	HAZ	51	14	HLE	115	37	HTT	13	1	ICK	1292	228	IJA	10	6	IOE	6	3
GOV	670	19	HBA	8	5	HLI	33	12	HTU	5	2	ICL	301	21	IJB	3	1	IOG	41	15
GOW	24	7	HBE	2	1	HLO	80	15	HTW	8	3	ICN	20	4	IJE	3	1	IOI	2	2
GOY	1	1	HBI	8	1	HLU	1	1	HTY	60	11	ICU	122	48	IJI	2	2	IOL	324	54
GPE	1	1	HBL	1	1	HLY	237	24	HUA	7	4	ICR	99	34	IJO	2	2	IOM	27	11
GPI	5	4	HBO	173	22	HMA	104	29	HUB	28	12	ICS	634	87	IJU	11	2	ION	21626	1807
GPL	2	2	HBR	7	2	HME	181	36	HUC	34	7	ICT	1326	130	IKA	12	10	IOP	20	9
GPO	1	1	HBY	1	1	HMI	20	8	HUD	91	13	ICU	830	59	IKE	1976	73	IOR	544	46
GRA	2413	352	HCA	3	1	HMM	1	1	HUE	5	4	ICY	257	10	IKH	1	1	IOS	82	21
GRE	2659	160	HCE	2	2	HMN	1	1	HUF	20	6	IDA	2	2	IKI	76	12	IOT	69	25
GRI	363	75	HCH	70	2	HMO	18	6	HUG	114	14	IDA	403	66	IKK	1	1	IOU	1631	182
GRO	1724	100	HCO	14	3	HMP	1	1	HUH	9	4	IDB	3	2	IKL	1	1	IOV	6	4
GRU	78	26	HCU	1	1	HMS	26	6	HUI	3	3	IDD	238	41	IKO	22	9	IOW	5	2
GPY	68	2	HDA	20	2	HMU	2	1	HUL	33	13	IDE	5415	332	IKS	14	5	IOX	3	2
GRZ	1	1	HDI	1	1	HNA	12	7	HUM	565	65	IDG	251	33	IKU	4	2	IOZ	1	1
GSA	1	1	HDO	10	3	HNE	47	23	HUN	481	43	IDI	391	87	ILA	683	81	IPA	356	37
GSB	2	1	HDR	31	5	HNF	1	1	HUP	4	3	IDJ	3	1	ILB	43	15	IPB	4	2
GSD	1	1	HEA	2643	206	HNG	1	1	HUR	740	49	IDL	140	24	ILC	11	6	IPC	2	1
GSH	5	5	HEB	19	4	HNI	327	11	HUS	610	31	IDM	2	2	ILD	1248	61	IPE	128	33
GSI	17	3	HEC	174	21	HNN	56	2	HUT	105	23	IDN	57	13	ILE	2349	185	IPF	2	1
GSK	8	2	HED	1848	205	HNO	63	4	HUX	6	1	IDO	79	22	ILF	8	7	IPG	1	1
GSL	2	1	HEE	403	63	HNS	74	4	HUY	14	3	IDP	2	2	ILG	49	7	IPH	39	20
GSO	2	2	HEF	24	7	HNU	1	1	HUZ	2	2	IDR	1	1	ILH	37	13	IPI	63	24
GST	65	18	HEG	6	3	HOA	54	14	HVE	1	1	IDS	208	43	ILI	2031	319	IPJ	4	1
GSU	1	1	HEH	3	2	HOB	25	17	HVI	9	2	IDT	24	7	ILK	78	15	IPL	392	33
GSW	6	2	HEI	2841	50	HOC	99	26	HWA	108	21	IDU	378	17	ILL	6093	408	IPM	195	9
GTE	1	1	HEK	4	3	HOD	530	35	HWE	60	9	IDW	30	7	ILM	175	20	IPO	25	15
GTH	351	16	HEL	1466	103	HOE	118	19	HWH	10	3	IDY	12	6	ILN	3	2	IPP	398	89
GTI	5	2	HEM	2443	78	HOF	6	4	HWI	12	6	IEB	8	5	ILO	291	46	IPR	11	3
GTO	287	26	HEN	4471	115	HOG	41	12	HWO	7	6	IEC	267	23	ILP	15	2	IPS	332	60
GTR	1	1	HEO	314	27	HOH	10	2	HWU	1	1	IED	1688	155	ILQ	2	2	IPT	185	38
GUA	329	39	HEP	14	8	HOI	147	11	HYA	13	5	IEF	510	33	ILR	77	5	IPU	51	16
GUB	7	1	HEQ	5	1	HOJ	1	1	HYB	1	1	IEG	23	10	ILS	341	53	IPW	3	2
GUE	610	69	HER	15467	444	HOK	25	5	HYD	87	30	IEH	2	2	ILT	304	42	IPY	4	2
GUF	1	1	HES	2926	224	HOL	1622	155	HYE	1	1	IEK	11	4	ILU	121	12	IQL	11	1
GUG	4	3	HET	515	54	HOM	1069	61	HYF	5	2	IEL	603	60	ILV	36	6	IQU	423	55
GUH	1	1	HEU	16	11	HON	647	86	HYG	3	1	IEM	6	3	ILW	26	7	IRA	260	60
GUI	461	74	HEV	101	20	HOO	1220	103	HYL	40	13	IEN	2222	149	ILY	1059	81	IRB	18	3
GUL	315	48	HEW	48	17	HOP	620	62	HYM	41	9	IEP	20	5	ILZ	1	1	IRC	403	46
GUM	105	11	HEX	11	7	HOR	1403	164	HYN	7	6	IER	721	149	IMA	1270	110	IRD	339	32
GUN	274	30	HEY	3658	14	HOS	1557	65	HYP	121	38	IES	3833	515	IMB	158	44	IRE	2598	199
GUO	28	4	HEZ	10	3	HOT	584	58	HYR	87	16	IET	927	69	IMC	8	5	IRF	15	5
GUR	405	25	HFA	4	2	HOU	4659	120	HYS	323	37	IEU	71	17	IME	3049	161	IRG	127	11
GUS	120	29	HFI	10	5	HOV	53	17	HYT	50	7	IEV	692	51	IMF	1	1	IRI	590	58
GUT	23	11	HFO	5	3	HOW	2407	49	HZE	11	1	IEW	475	28	IMI	968	112	IRK	38	16
GUY	71	2	HFU	59	14	HOX	1	1	HZI	1	1	IEZ	20	4	IML	33	7	IRL	501	33
GUZ	2	2	HGA	2	2	HOY	7	4	IAB	216	40	IFA	8	4	IMM	492	76	IRM	430	45
GVE	1	1	HGE	2	1	HOZ	4	3	IAC	39	21	IFE	1128	33	IMN	11	3	IRN	10	4
GWA	4	3	HGO	7	4	HPA	6	2	IAD	30	8	IFF	1186	75	IMO	142	32	IRO	197	34
GWE	1	1	HHE	17	4	HPI	8	2	IAE	5	3	IFI	1273	183	IMP	2052	221	IRP	50	10
GWI	5	2	HHH	2	1	HPL	6	1	IAG	233	25	IFL	120	15	IMS	754	27	IRR	227	59
GWO	5	4	HHO	13	5	HPO	3	2	IAH	11	7	IFN	1	1	IMT	1	1	IRS	1655	35
GWR	1	1	HHU	4	1	HPU	1	1	IAI	7	2	IFO	173	12	IMU	289	24	IRT	454	51
GYM	41	9	HIA	155	31	HQU	18	2	IAK	5	3	IFS	7	3	INA	2314	337	IRU	19	5
GYN	6	5	HIB	163	32	HRA	97	26	IAL	3282	249	IFT	538	47	INR	36	14	IRV	12	7

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
IRW	23	7	IZO	62	8	JUP	9	1	KIP	26	8	KUB	1	1	LDM	2	2	LIZ	702	173
IRY	60	6	IZU	9	2	JUR	197	24	KIR	80	20	KUH	1	1	LDN	10	4	LKA	22	12
IRZ	1	1	IZV	1	1	JUS	1255	38	KIS	81	23	KUK	1	1	LDO	56	14	LKE	279	24
ISA	377	92	IZZ	67	25	JUT	3	2	KIT	155	20	KUL	14	6	LDR	368	6	LKH	5	4
ISB	33	17	JAB	7	5	JUV	18	1	KIV	1	1	KUM	1	1	LDS	197	29	LKI	186	15
ISC	1108	158	JAC	246	37	JUX	5	2	KIW	3	2	KUN	4	3	LDT	2	2	LKL	29	2
ISD	94	12	JAD	3	2	KAB	112	18	KIY	3	2	KUP	33	9	LDU	5	3	LKN	23	3
ISE	1738	207	JAG	17	7	KAC	36	9	KIZ	8	2	KUR	3	3	LDV	3	1	LKO	2	2
ISF	196	18	JAH	6	6	KAF	5	1	KJA	2	1	KUS	2	2	LDW	13	6	LKS	71	16
ISG	43	14	JAI	27	4	KAG	54	13	KJO	15	2	KUT	9	3	LDY	2	2	LKW	2	2
ISH	2243	307	JAK	9	4	KAH	9	3	KKA	2	2	KUY	3	1	LEA	3037	181	LKY	20	8
ISI	1499	142	JAL	1	1	KAI	3	3	KKE	11	4	KWI	1	1	LEB	82	27	LLA	767	164
ISJ	3	2	JAM	138	11	KAJ	1	1	KKI	4	1	KWA	59	16	LEC	1408	135	LLB	20	12
ISK	179	27	JAN	150	22	KAK	2	2	KKO	1	1	KWE	4	2	LED	2966	393	LLC	8	5
ISL	445	39	JAP	95	3	KAL	18	13	KKU	1	1	KWH	4	2	LEE	340	60	LLD	1	1
ISM	824	224	JAR	37	10	KAM	11	7	KLA	43	17	KWI	3	1	LEF	511	18	LLE	2951	372
ISN	4	4	JAS	18	4	KAN	69	16	KLE	188	72	KWO	22	10	LEG	1010	100	LLF	22	9
ISO	440	90	JAU	2	1	KAP	10	5	KLI	83	25	KWU	2	2	LEH	13	11	LLG	2	2
ISP	445	84	JAV	5	2	KAR	70	27	KLU	34	3	KYA	6	3	LEI	64	31	LLH	3	3
ISQ	14	9	JAW	28	4	KAS	20	6	KLU	5	3	KYB	1	1	LEJ	1	1	LLI	1814	269
ISR	72	26	JAY	19	3	KAT	112	18	KLY	182	16	KYE	1	1	LEK	3	2	LLK	1	1
ISS	1577	151	JAZ	101	3	KAU	4	4	KMA	42	20	KYG	2	2	LEL	86	19	LLM	44	14
IST	5733	721	JBI	3	1	KAV	1	1	KME	15	4	KYL	12	7	LEM	1158	93	LLN	40	8
ISU	102	18	JDA	10	1	KAW	4	4	KMI	1	1	KYN	3	2	LEN	1340	196	LLO	1484	150
ISV	6	1	JEA	35	7	KAX	1	1	KMO	2	2	KYO	26	3	LEO	56	21	LLP	37	6
ISW	1	1	JEB	1	1	KAY	55	7	KNA	22	8	KYR	20	1	LEP	189	21	LLR	8	1
ISY	13	2	JEC	944	63	KAZ	3	3	KNE	686	28	KYS	3	2	LER	980	231	LLS	722	84
ITA	1620	221	JED	8	1	KBA	1	1	KNI	134	13	KYT	1	1	LES	3550	509	LLT	2	2
ITB	1	1	JEE	19	4	KBE	15	5	KNU	1406	44	KYW	33	2	LET	1625	135	LLU	257	55
ITC	432	58	JEF	33	4	KBI	1	1	KNU	13	4	LAA	4	1	LEU	34	11	LLV	2	1
ITE	3397	250	JEH	1	1	KBO	22	9	KOA	1	1	LAB	701	68	LEV	698	53	LLW	22	11
ITF	18	10	JEJ	3	1	KBR	1	1	KOB	3	3	LAC	1641	114	LEW	115	14	LLY	3552	423

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
ITG	2	2	JEL	12	4	KCA	3	2	KOC	3	3	LAD	348	49	LEX	299	35	LMA	104	39
ITH	9089	85	JEM	1	1	KCH	1	1	KOD	13	4	LAE	12	6	LEY	364	96	LMD	1	1
ITI	4716	419	JEN	44	11	KDA	4	3	KOE	7	4	LAF	21	5	LEZ	5	4	LME	179	29
ITK	1	1	JEO	9	3	KDO	19	5	KOF	45	9	LAG	223	51	LFA	57	5	LMI	68	17
ITL	204	18	JER	90	18	KDR	3	2	KOG	1	1	LAH	27	13	LFB	11	2	LML	11	1
ITM	43	8	JES	138	15	KEA	12	3	KOH	15	3	LAI	864	92	LFC	1	1	LMN	3	2
ITN	84	9	JET	36	5	KEB	2	2	KOI	3	2	LAK	84	11	LFE	26	10	LMO	481	16
ITO	441	89	JEU	3	3	KED	2142	165	KOJ	1	1	LAL	34	6	LFF	2	1	LMR	1	1
ITR	94	38	JEW	169	11	KEE	492	41	KOK	5	5	LAM	357	95	LFG	1	1	LMS	45	7
ITS	2718	78	JIB	1	1	KEF	20	3	KOL	31	14	LAN	3032	326	LFH	1	1	LMU	7	4
ITT	1939	140	JID	1	1	KEG	8	6	KOM	6	6	LAO	89	6	LFI	59	19	LMY	3	2
ITU	1210	103	JIF	2	1	KEH	13	2	KON	56	21	LAP	141	43	LFL	3	2	LNE	120	41
ITW	3	1	JIG	10	3	KEI	24	4	KOO	4	3	LAQ	6	2	LFO	10	7	LNG	3	2
ITY	3983	397	JIL	16	3	KEK	1	1	KOP	13	5	LAR	2528	228	LFR	86	7	LNI	1	1
ITZ	92	30	JIM	55	9	KEL	241	28	KOR	53	14	LAS	1892	153	LFS	2	2	LNO	1	1
IUA	1	1	JIN	6	5	KEM	13	6	KOS	6	5	LAT	3087	380	LFT	6	2	LNU	21	4
IUB	1	1	JIS	7	1	KEN	923	93	KOT	7	2	LAU	375	71	LFU	25	12	LOA	307	48
IUC	2	2	JIT	4	3	KEO	9	4	KOU	23	8	LAV	188	39	LFW	19	2	LOB	110	33
IUD	3	1	JIV	1	1	KEP	204	7	KOV	23	13	LAW	584	32	LGA	32	13	LOC	985	94
IUK	1	1	JOA	16	3	KER	734	136	KOW	26	6	LAX	72	14	LGE	51	17	LOD	120	28
IUL	2	2	JOB	308	6	KES	561	62	KOY	1	1	LAY	1125	80	LGH	25	1	LOE	23	14
IUM	303	67	JOC	14	7	KET	650	91	KOZ	1	1	LAZ	77	24	LGI	70	16	LOF	13	6
IUN	1	1	JOD	1	1	KEU	1	1	KPA	3	2	LBA	28	12	LGL	2	1	LOG	858	189
IUR	6	2	JOE	69	3	KEW	26	5	KPI	20	5	LBE	59	15	LGO	5	3	LOH	4	3
IUS	79	32	JOG	1	1	KEY	229	29	KPO	6	4	LBI	6	4	LGR	20	4	LOI	68	28
IUV	1	1	JOH	482	9	KEZ	1	1	KRA	19	13	LBL	3	2	LHA	20	6	LOK	3	3
IVA	599	87	JOI	240	25	KFA	58	4	KRE	14	3	LBO	64	20	LHE	12	6	LOL	22	9
IVE	6599	536	JOK	39	6	KFE	2	1	KRI	24	8	LBR	10	6	LHI	6	2	LOM	94	26
IVI	1835	132	JOL	33	9	KFI	3	2	KRO	15	11	LBS	9	2	LHO	38	9	LON	2066	117
IVN	1	1	JON	84	8	KFO	6	4	KRU	24	7	LBU	21	5	LIA	825	128	LOO	1702	90
IVO	98	16	JOP	1	1	KFU	40	6	KRY	4	1	LBY	1	1	LIB	447	63	LOP	861	60
IVR	4	2	JOR	325	11	KGO	1	1	KSA	1	1	LCA	15	9	LIC	2201	206	LOQ	24	9
IVS	2	1	JOS	74	11	KGR	74	2	KSB	4	2	LCE	14	6	LID	372	53	LOR	873	133
IVU	5	4	JOT	3	3	KHA	17	14	KSC	3	1	LCH	38	15	LIE	1681	151	LOS	1314	79
IVY	14	3	JOU	136	23	KHE	16	9	KSE	4	2	LCI	17	6	LIF	1104	69	LOT	631	74
IWA	19	4	JOV	3	3	KHM	1	1	KSG	9	2	LCK	1	1	LIG	1518	129	LOU	539	109
IWE	2	2	JOW	6	2	KHO	44	12	KSH	42	11	LCL	3	1	LIH	15	2	LOV	509	47
IWI	1	1	JOY	232	15	KHR	71	3	KSI	6	4	LCO	131	26	LIJ	1	1	LOW	2253	140
IWO	1	1	JUA	33	4	KHT	1	1	KSK	8	2	LCR	1	1	LIK	1734	57	LOX	1	1
IXA	1	1	JUB	14	4	KIA	10	6	KSL	10	1	LCU	82	15	LIL	48	18	LOY	371	33
IXE	148	12	JUC	1	1	KIB	1	1	KSM	13	3	LCY	6	3	LIM	634	78	LPA	33	7
IXI	30	8	JUD	298	31	KIC	52	6	KSO	55	10	LDA	13	8	LIN	3748	640	LPE	88	10
IXO	34	4	JUE	8	1	KID	129	17	KSP	3	1	LDB	15	4	LIO	458	56	LPF	34	3
IXT	141	9	JUG	46	10	KIE	76	20	KST	47	13	LDC	5	2	LIP	308	64	LPH	134	23
IYA	2	1	JUH	1	1	KIF	13	2	KSW	2	2	LDD	1	1	LIQ	127	16	LPI	51	5
IYE	2	2	JUI	20	4	KII	11	4	KSY	3	1	LDE	651	101	LIR	8	5	LPL	37	5
IYO	2	1	JUJ	1	1	KIK	5	3	KTA	28	3	LDF	1	1	LIS	1916	278	LPM	1	1
IYU	1	1	JUK	2	1	KIL	393	39	KTH	7	2	LDG	3	1	LIT	3646	353	LPO	17	5
IZA	587	98	JUL	120	10	KIM	29	12	KTI	9	3	LDH	51	2	LIU	31	8	LPR	9	4
IZE	1334	263	JUM	80	8	KIN	2750	276	KTO	6	4	LDI	535	47	LIV	862	55	LPS	36	5
IZI	158	68	JUN	296	28	KIO	2	2	KTU	2	2	LDL	83	9	LIX	34	3	LPT	33	7
LPY	2	1	LYL	8	4	MET	1762	174	MOY	5	2	NAL	3536	311	NFE	298	47	NLO	46	15
LQU	4	3	LYM	51	19	MEU	1	1	MOZ	13	4	NAM	674	50	NFI	291	66	NLU	3	2
LRA	14	2	LYN	90	17	MEV	6	2	MPA	1219	104	NAN	618	102	NFL	304	34	NLY	2221	33
LRE	274	2	LYO	8	4	MEW	204	9	MPB	4	1	NAO	3	2	NFO	619	63	NMA	38	21
LRI	4	2	LYP	20	8	MEX	57	4	MPE	761	137	NAP	113	42	NFR	117	23	NME	744	38
LRO	90	8	LYR	42	8	MEY	49	9	MPF	3	2	NAR	672	113	NFU	188	36	NMI	18	7
LRU	1	1	LYS	182	22	MEZ	3	2	MPG	5	2	NAS	141	54	NGA	206	45	NMO	11	7
LRY	39	6	LYT	51	17	MFE	5	2	MPH	254	41	NAT	2981	335	NGB	8	7	NMU	3	3
LSA	12	7	LYU	2	2	MFG	1	1	MPI	229	48	NAU	55	23	NGD	31	5	NMY	1	1
LSB	12	2	LYW	36	5	MFI	1	1	MPK	9	2	NAV	118	22	NGE	2399	222	NNA	259	52
LSD	1	1	LYZ	49	12	MFO	138	14	MPL	2306	155	NAW	33	11	NGF	52	9	NNE	1242	153
LSE	312	17	LZA	3	2	MFU	7	4	MPM	4	2	NAX	3	2	NGG	1	1	NNF	1	1
LSF	1	1	LZB	3	1	MHA	2	1	MPN	6	2	NAY	10	4	NGH	57	19	NNG	2	1
LSH	17	9	LZE	2	2	MHE	1	1	MPO	1162	85	NAZ	30	7	NGI	575	65	NNH	2	1
LSI	107	30	LZI	5	2	MHO	13	4	MPP	1	1	NBA	18	12	NGK	1	1	NNI	771	108
LSK	21	3	LZM	1	1	MHU	1	1	MPR	531	74	NBE	64	24	NGL	1112	179	NNN	5	2
LSL	1	1	LZR	1	1	MIA	134	27	MPS	161	31	NBI	2	2	NGM	4	3	NNO	597	46
LSM	1	1	LZU	1	1	MIC	955	149	MPT	563	63	NBL	5	4	NGN	19	3	NNS	54	8
LSO	1186	21	MAB	49	9	MID	303	48	MPU	210	32	NBO	18	10	NGO	105	22	NNT	1	1
LSP	1	1	MAC	414	70	MIE	109	23	MPY	8	6	NBR	16	5	NGP	2	2	NNU	121	9
LSS	3	2	MAD	1282	39	MIF	6	4	MRA	18	5	NBU	37	15	NGR	457	49	NNY	193	28
LST	50	25	MAE	27	7	MIG	764	27	MRI	8	1	NCA	71	33	NGS	1583	246	NOA	1	1
LSV	2	2	MAG	781	91	MIJ	6	2	MRO	5	3	NCE	8426	540	NGT	635	44	NOB	143	22
LSW	1	1	MAH	51	13	MIK	95	5	MRS	534	1	NCH	967	157	NGU	409	53	NOC	161	35
LSY	2	1	MAI	923	53	MIL	1998	127	MSA	1	1	NCI	1230	139	NGV	1	1	NOD	159	14
LTA	186	31	MAJ	337	13	MIM	22	8	MSB	2	2	NCK	11	8	NGW	7	5	NOE	21	8
LTB	2	2	MAK	1302	31	MIN	3688	431	MSC	6	5	NCL	756	42	NGY	15	7	NOF	17	8
LTD	5	1	MAL	1449	134	MIO	2	2	MSD	1	1	NCO	644	120	NHA	121	30	NOG	32	18
LTE	476	71	MAM	85	13	MIP	1	1	MSE	889	9	NCR	643	27	NHE	96	30	NOI	113	17
LTH	540	25	MAN	5696	470	MIQ	3	3	MSH	5	3	NCS	6	2	NHH	1	1	NOK	1	1
LTI	444	80	MAO	7	1	MIR	181	36	MSI	6	5	NCT	505	60	NHI	45	13	NOL	175	45
LTL	2	2	MAP	47	8	MIS	1628	217	MSK	1	1	NCU	65	27	NHO	79	20	NOM	738	75
LTM	6	3	MAQ	1	1	MIT	1225	131	MSM	2	2	NCY	447	68	NHU	18	6	NON	415	94
LTN	6	1	MAR	2232	240	MIU	27	8	MSO	13	5	NCZ	1	1	NHW	1	1	NOO	161	13
LTO	146	27	MAS	665	98	MIX	102	10	MSP	7	5	NDA	1004	115	NHY	2	2	NOP	47	19
LTR	61	18	MAT	2456	266	MIY	2	1	MSS	1	1	NDB	37	10	NIA	428	98	NOR	1356	120
LTS	248	26	MAU	43	13	MIZ	73	26	MST	119	8	NDC	11	3	NIB	22	10	NOS	172	50
LTU	215	18	MAV	6	3	MKI	5	2	MSU	2	2	NDD	2	1	NIC	1132	168	NOT	6689	79
LTY	267	18	MAW	6	4	MKO	1	1	MSY	8	2	NDE	4012	466	NID	4	4	NOU	746	70
LTZ	17	5	MAX	147	17	MLA	2	2	MTE	3	2	NDF	39	10	NIE	426	70	NOV	331	37
LUA	135	16	MAY	1621	22	MLE	29	15	MTH	28	1	NDG	6	3	NIF	527	54	NOW	2769	45
LUB	231	22	MAZ	69	15	MLI	23	8	MTK	1	1	NDH	12	7	NIG	646	46	NOX	16	6
LUC	234	45	MBA	157	38	MLO	3	3	MTO	1	1	NDI	2631	254	NIH	12	6	NOY	27	7
LUD	589	40	MBB	3	2	MLY	106	13	MTS	1	1	NDK	10	2	NII	1	1	NOZ	9	4
LUE	850	40	MBE	1905	80	MMA	361	69	MUB	1	1	NDL	445	62	NIJ	1	1	NPA	30	16
LUF	16	6	MBI	346	48	MME	1026	128	MUC	952	9	NDM	77	15	NIK	39	16	NPE	3	3
LUG	85	19	MBL	423	85	MMI	582	65	MUD	67	15	NDN	25	7	NIL	56	20	NPH	2	2
LUI	61	14	MBN	3	2	MMK	1	1	MUE	38	5	NDO	627	94	NIM	326	40	NPI	27	4
LUJ	2	2	MBO	220	37	MML	1	1	MUF	16	5	NDP	19	5	NIN	3118	325	NPL	42	12
LUK	10	4	MBP	3	1	MMM	4	2	MUG	18	9	NDQ	1	1	NIO	636	46	NPO	42	13
LUL	35	13	MBR	97	32	MMO	456	52	MUH	1	1	NDR	358	53	NIP	38	21	NPR	36	17
LUM	629	90	MBS	67	11	MMS	17	1	MUI	1	1	NDS	1817	128	NIQ	238	11	NPU	24	3
LUN	296	50	MBU	77	24	MMU	707	38	MUK	1	1	NDT	20	7	NIR	10	4	NQU	186	45
LUO	28	9	MBY	3	2	MMY	45	11	MUL	478	86	NDU	698	67	NIS	1402	258	NRA	19	10
LUP	4	2	MCA	1	1	MNA	38	12	MUM	189	14	NDV	1	1	NIT	2039	146	NRE	87	43
LUR	157	31	MCC	2	2	MNE	59	9	MUN	744	52	NDW	32	8	NIU	54	17	NRI	95	14
LUS	642	98	MCE	1	1	MNI	33	14	MUO	1	1	NDY	120	18	NIV	418	19	NRO	43	12
LUT	493	75	MCH	8	4	MNL	9	1	MUP	1	1	NEA	692	58	NIX	34	2	NRU	8	4
LUU	1	1	MCI	6	3	MNO	7	5	MUR	219	27	NEB	20	9	NIZ	603	75	NRY	93	4
LUV	2	2	MCO	7	4	MNS	45	3	MUS	1710	82	NEC	663	55	NJA	15	4	NSA	205	42
LUX	81	12	MDA	2	1	MNY	1	1	MUT	141	33	NED	3677	301	NJE	27	8	NSB	2	2
LUZ	1	1	MDE	2	1	MOA	7	6	MUZ	14	5	NEE	1016	49	NJI	10	3	NSC	274	53
LVA	139	21	MDO	1	1	MOB	164	15	MVI	4	1	NEF	146	20	NJO	164	12	NSD	17	5

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
LVO	4	1	MDR	1	1	MGC	231	21	MWA	1	1	NEG	358	29	NJU	158	30	NSE	1470	134
LVE	381	60	MDU	2	1	MGD	612	68	MWE	22	2	NEH	11	7	NKA	24	11	NSF	165	20
LVI	93	22	MEA	1376	59	MGE	2	1	MWO	1	1	NEI	327	19	NKC	1	1	NSG	2	2
LVO	3	2	MEB	63	6	MGF	4	3	MYC	11	6	NEK	13	4	NKE	268	71	NSH	247	52
LWA	501	10	MEC	135	19	MGG	46	17	MYE	6	4	NEL	443	79	NKF	41	7	NSI	2336	193
LWE	2	2	MED	1980	183	MGH	3	3	MYL	2	1	NEM	222	31	NKG	1	1	NSK	20	10
LWH	1	1	MEE	403	13	MGI	58	17	MYN	5	3	NEN	357	50	NKH	3	3	NSL	95	26
LWI	4	2	MEF	5	4	MGK	74	11	MYO	12	9	NEO	141	25	NKI	340	32	NSM	51	16
LWO	18	12	MEG	28	13	MGL	213	58	MYR	38	5	NEP	23	7	NKL	114	23	NSO	367	72
LWY	1	1	MEH	74	3	MGM	361	17	MYS	224	13	NEQ	16	10	NKM	7	4	NSP	301	51
LYA	36	6	MEI	9	9	MGN	2254	236	MYT	78	13	NER	2507	261	NKN	54	5	NSR	1	1
LYB	4	4	MEJ	7	1	MGO	262	36	NAB	339	56	NES	2975	554	NKO	11	8	NSS	9	4
LYC	23	14	MEK	3	1	MGP	20	11	NAC	176	59	NET	493	94	NKP	1	1	NST	2418	182
LYD	3	2	MEL	387	71	MGR	3577	161	NAD	157	34	NEU	151	46	NKR	15	3	NSU	432	84
LYE	31	12	MEM	988	47	MGS	1901	50	NAE	26	10	NEV	933	20	NKS	253	30	NSV	12	8
LYF	7	3	MEN	7993	642	MGT	945	79	NAF	17	5	NEW	2477	56	NKT	2	2	NSW	281	8
LYG	1	1	MEO	102	5	MGU	877	88	NAG	385	48	NEX	486	26	NKY	7	6	NSY	60	8
LYH	11	5	MEP	8	3	MGV	956	21	NAH	16	6	NEY	568	52	NLA	52	19	NTA	1944	249
LYI	178	21	MER	2660	224	MGW	1	1	NAI	150	32	NEZ	9	4	NLE	193	25	NTB	1	1
LYK	2	1	MES	1601	99	MGX	1	1	NAK	133	16	NFA	114	31	NLI	160	30	NTC	3	2
NTE	5066	526	OAQ	1	1	OFL	5	3	OLQ	2	1	OPO	427	64	OUK	10	4	PAK	14	5
NTF	6	4	OAR	481	59	OFM	1	1	OLR	3	1	OPP	837	79	OUL	5490	56	PAL	487	75
NTG	16	1	OAS	142	21	OFN	1	1	OLS	375	39	OPR	160	25	OUM	9	5	PAM	45	9
NTH	714	80	OAT	476	72	OFO	55	10	OLT	116	30	OPS	229	49	OUN	5010	271	PAN	1063	104
NTI	4215	434	OAV	3	1	OFS	15	3	OLU	834	64	OPT	200	22	OUP	766	34	PAO	3	1
NTL	1126	123	OAX	7	5	OFT	521	27	OLV	447	38	OPU	312	20	OUQ	5	2	PAP	392	25
NTM	82	13	OAZ	2	1	OFU	11	5	OLW	2	2	OPW	1	1	OUR	5068	190	PAQ	6	1
NTN	6	5	OBA	406	30	OGA	87	38	OLY	214	55	OPY	65	17	OUS	4168	549	PAR	4041	297
NTO	2150	84	OBB	186	49	OGB	1	1	OLZ	3	3	OQU	40	13	OUT	6449	215	PAS	1021	86
NTP	7	1	OBC	1	1	OGD	3	1	OMA	811	104	ORA	1188	191	OUV	25	14	PAT	1264	165
NTR	2145	202	OBD	1	1	OGE	447	40	OMB	411	68	ORB	153	35	OUX	12	2	PAU	134	17
NTS	3055	293	OBE	340	46	OGG	62	21	OMD	2	1	ORC	796	54	OUZ	1	1	PAV	36	14
NTU	487	45	OBI	233	38	OGH	4	3	OME	6221	225	ORD	2372	164	OVA	195	35	PAW	26	10
NTW	5	3	OBJ	320	16	OGI	471	111	OMF	133	13	ORE	5346	278	OVD	1	1	PAX	9	3
NTY	382	18	OBL	688	36	OGL	31	10	OMH	3	2	ORF	29	6	OVE	5453	342	PAY	413	24
NTZ	1	1	OBN	5	1	OGM	16	5	OMI	1384	150	ORG	937	83	OVI	1125	66	PBA	1	1
NUA	247	20	OBO	96	16	OGN	248	22	OMK	1	1	ORH	81	5	OVK	1	1	PBE	6	3
NUB	10	6	OBR	7	4	OGO	21	6	OML	5	4	ORI	1787	271	OVO	37	14	PBO	6	4
NUC	171	19	OBS	414	51	OGR	1000	98	OMM	2125	149	ORK	1865	79	OVS	12	7	PBR	1	1
NUD	32	9	OBT	189	10	OGS	87	9	OMN	9	6	ORL	883	20	OVY	4	2	PBU	3	1
NUE	420	20	OBU	40	12	OGT	10	2	OMO	331	50	ORM	2466	160	OWA	597	28	PCE	1	1
NUF	132	12	OBV	208	4	OGU	60	22	OMP	2664	249	ORN	932	102	OWB	34	11	PCH	3	2
NUG	15	6	OBW	1	1	OGW	1	1	OMR	17	4	ORO	260	59	OWC	3	1	PCI	1	1
NUH	1	1	OBY	9	2	OGY	253	44	OMS	191	34	ORP	389	56	OWD	170	22	PCO	4	3
NUI	149	10	OCA	809	96	OHA	11	10	OMT	2	2	ORQ	16	5	OWE	2200	132	PDA	5	3
NUK	1	1	OCC	555	48	OHD	1	1	OMU	10	8	ORR	706	101	OWF	5	4	PDO	2	2
NUL	25	10	OCE	700	45	OHE	37	13	OMW	22	2	ORS	1624	249	OWG	3	2	PDR	1	1
NUM	812	46	OCH	111	51	OHI	69	9	OMY	147	14	ORT	4342	347	OWH	38	7	PEA	1504	93
NUN	25	17	OCI	1109	59	OHL	26	5	ONA	2863	334	ORU	44	11	OWI	624	44	PEB	5	3
NUO	96	12	OCK	1163	176	OHM	37	6	ONB	1	1	ORV	12	3	OWL	388	44	PEC	2067	142
NUP	5	3	OCL	58	14	OHN	507	15	ONC	1741	131	ORW	152	10	OWM	26	7	PED	1292	175
NUR	78	11	OCN	7	2	OHO	25	7	OND	2071	152	ORY	1198	93	OWN	3224	134	PEE	305	37
NUS	132	24	OCO	89	31	OHR	4	1	ONE	6505	299	ORZ	3	3	OWO	5	3	PEF	26	5
NUT	388	38	OCR	246	32	OHY	2	2	ONF	741	100	OSA	152	30	OWP	5	4	PEG	23	13
NUU	7	1	OCT	306	33	OIA	6	4	ONG	3007	135	OSB	13	5	OWR	5	4	PEH	1	1
NUV	1	1	OCU	174	32	OIB	3	1	ONH	6	6	OSC	115	29	OWS	610	66	PEI	10	6
NUX	1	1	OCY	10	9	OIC	438	18	ONI	842	269	OSD	10	1	OWT	158	4	PEK	2	2
NUZ	1	1	OCZ	2	1	OID	222	46	ONJ	67	17	OSE	3275	168	OWU	15	2	PEL	261	64
NVA	146	27	ODA	327	17	OIE	2	2	ONK	48	13	OSG	1	1	OWW	1	1	PEM	8	4
NVE	743	92	ODB	13	6	OIF	1	1	ONL	1815	16	OSH	36	18	OWY	7	4	PEN	2257	176
NVI	385	62	ODC	3	3	OIG	10	4	ONM	97	17	OSI	1028	131	OWZ	1	1	PEO	890	6
NVO	311	22	ODD	182	31	OIJ	3	1	ONN	413	69	OSK	13	6	OXA	8	7	PEP	30	12
NVU	10	6	ODE	955	85	OIK	1	1	ONO	815	108	OSL	32	12	OXC	11	4	PER	6244	559
NVY	7	1	ODF	2	2	OIL	362	57	ONP	26	10	OSM	49	14	OXE	37	8	PES	335	55
NWA	67	24	ODG	105	22	OIN	1782	100	ONQ	29	11	OSO	201	27	OXF	19	2	PET	548	93
NWE	28	5	ODH	6	5	OIR	44	17	ONR	46	12	OSP	423	53	OXH	3	2	PEU	16	4
NWH	40	3	ODI	402	89	OIS	251	65	ONS	7620	784	OSQ	14	4	OXI	181	28	PEV	4	2
NWI	63	14	ODK	4	1	OIT	70	21	ONT	3177	252	OSR	2	2	OXM	1	1	PEW	20	8
NWO	12	8	ODL	28	16	OIX	1	1	ONU	58	16	OSS	1607	95	OXN	1	1	PEX	4	1
NWR	1	1	ODM	12	2	OIZ	1	1	ONV	549	74	OST	2940	158	OXO	3	2	PEY	4	2
NXE	1	1	ODN	21	3	OJE	210	13	ONW	23	9	OSU	49	10	OXV	1	1	PEZ	7	4
NXI	81	4	ODO	130	37	OJI	1	1	ONX	9	1	OSV	2	1	OXW	1	1	PFA	5	2
NYA	5	4	ODP	1	1	OJO	10	4	ONY	319	43	OSW	1	1	OXX	1	1	PFC	1	1
NYB	48	3	ODR	47	6	OJU	1	1	ONZ	26	6	OSY	21	9	OXY	66	11	PFE	1	1
NYD	1	1	ODS	424	35	OKA	32	7	OOB	8	4	OTA	454	48	OYA	167	32	PFI	2	1
NYE	2	2	ODT	1	1	OKC	3	2	OOC	5	4	OTB	42	6	OYB	11	2	PFO	3	1
NYG	1	1	ODU	840	48	OKE	992	83	OOD	2155	146	OTC	28	12	OYC	34	5	PFR	2	1
NYH	20	1	ODW	21	8	OKF	3	2	OOE	7	7	OTD	1	1	OYD	19	5	PFU	39	5
NYI	31	6	ODY	627	34	OKI	278	23	OOF	145	26	OTE	1598	131	OYE	315	21	PGA	2	1
NYL	12	8	OEA	3	1	OKK	13	3	OOG	9	6	OTF	2	2	OYF	3	3	PGO	2	1
NYM	45	13	OEB	12	4	OKL	50	7	OOI	2	2	OTG	9	2	OYH	5	1	PGR	12	6
NYO	162	7	OEC	3	1	OKM	1	1	OOK	2173	107	OTH	4864	130	OYI	59	8	PHA	340	73
NYP	1	1	OED	44	15	OKN	2	1	OOL	1247	74	OTI	943	123	OYL	6	3	PHE	461	89
NYS	8	4	OEE	1	1	OKO	50	10	OOM	720	73	OTL	60	14	OYM	87	6	PHI	704	126
NYT	281	2	OEF	10	5	OKS	223	21	OON	625	73	OTM	51	4	OYN	11	2	PHL	19	4
NYV	3	1	OEG	3	2	OKU	19	6	OOO	12	5	OTN	6	2	OYO	11	5	PHN	1	1
NYW	86	3	OEH	4	2	OKW	2	2	OOP	279	54	OTO	325	66	OYR	2	1	PHO	603	132
NZA	36	15	OEI	7	4	OKY	28	5	OOR	845	47	OTP	2	2	OYS	210	17	PHR	100	19
NZE	23	11	OEL	38	13	OLA	461	101	OOS	239	42	OTR	30	16	OYT	4	1	PHS	40	10
NZI	6	6	OEM	138	5	OLB	7	5	OOT	519	91	OTS	252	45	OZA	10	6	PHT	2	2
NZO	3	3	OEN	16	7	OLC	15	9	OOV	17	6	OTT	623	100	OZE	116	15	PHU	10	6
NZW	1	1	OEO	1	1	OLD	2423	133	OOZ	8	3	OTU	15	9	OZI	6	4	PHY	489	63
NZY	27	4	OER	33	16	OLE	1251	174	OPA	98	23	OTW	7	4	OZO	18	6	PHZ	1	1
OAC	305	30	OES	778	35	OLF	68	14	OPC	3	2	OTY	30	10	OZY	8	3	PIA	162	32
OAD	765	64	OET	270	11	OLG	19	7	OPE	2645	147	OUA	6	2	OZZ	15	7	PIC	801	98
OAF	6	3	OEV	27	5	OLH	14	3	OPF	7	2	OUB	496	29	PAB	128	11	PID	186	26
OAG	24	4	OEW	1	1	OLI	1777	157	OPG	2	1	OUC	244	33	PAC	695	76	PIE	470	63
OAH	3	3	OEX	14	4	OLK	102	20	OPH	397	101	OUD	222	28	PAD	48	16	PIF	4	3
OAK	59	18	OEY	5	4	OLL	2032	179	OPI	459	67	OUE	19	6	PAE	4	3	PIG	42	16
OAL	181	15	OFA	29	10	OLM	83	19	OPK	11	4	OUF	9	5	PAG	211	37	PIK	76	7
OAM	90	11	OFE	261	21	OLN	56	6	OPL	908	18	OUG	3740	88	PAH	10	3	PIL	316	50
OAN	149	24	OFF	1743	87	OLO	1192	218	OPM	393	5	OUI	123	12	PAI	823	56	PIM	13	6
OAP	29	5	OFI	141	20	OLP	28	9	OPN	1	1	OUJ	1	1	PAJ	4	2	PIN	1126	210
PIO	96	16	PTH	74	3	RBO	162	47	RHU	2	1	RNM	512	10	RTE	1200	151	SAF	148	20
PIP	74	11	PTI	891	153	RBR	8	6	RHY	53	8	RNN	2	1	RTF	12	7	SAG	245	35
PIQ	4	2	PTL	52	5	RBS	41	10	RIA	1702	222	RNO	281	23	RTG	22	2	SAH	4	3
PIR	573	72	PTN	4	3	RBU	29	13	RIB	882	91	RNP	25	2	RTH	1553	123	SAI	2086	35
PIS	126	35	PTO	107	28	RBY	63	6	RIC	2756	285	RNR	1	1	RTI	1878	234	SAK	67	16
PIT	745	79	PTR	5	2	RCA	51	24	RID	708	103	RNS	287	42	RTK	1	1	SAL	815	114
PIU	18	2	PTS	102	16	RCE	1310	85	RIE	3024	273	RNT	9	4	RTL	217	36	SAM	958	27
PIV	4	3	PTU	144	34	RCH	1459	134	RIF	396	70	RNU	8	5	RTM	403	15	SAN	760	113
PIW	1	1	PTY	69	5	RCI	253	33	RIG	1467	114	RNW	4	3	RTN	73	9	SAP	146	26
PIX	1	1	PUA	1	1	RCK	2	2	RII	1	1	RNY	6	5	RTO	238	51	SAR	447	59
PIZ	5	3	PUB	864	31	RCL	113	13	RIJ	10	1	ROA	1006	78	RTR	94	25	SAS	123	20
PJA	4	1	PUC	4	3	RCM	1	1	RIK	137	17	ROB	1242	76	RTS	877	66	SAT	642	74
PKA	1	1	PUD	19	11	RCO	146	33	RIL	591	97	ROC	950	109	RTU	506	48	SAU	100	27

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
PKE	8	3	PUE	27	4	RCR	76	5	RIM	816	111	ROD	973	78	RTW	14	5	SAV	239	25
PKI	23	6	PUF	11	6	RCS	8	1	RIN	3963	556	ROE	107	14	RTY	624	20	SAW	385	15
PLA	3644	239	PUG	4	3	RCT	7	4	RIO	1340	124	ROF	430	49	RTZ	10	5	SAX	39	7
PLE	3295	187	PUI	2	1	RCU	263	46	RIP	547	102	ROG	900	70	RUA	47	3	SAY	867	19
PLI	1019	129	PUK	1	1	RCY	25	3	RIQ	6	5	ROH	58	10	RUB	92	26	SBA	168	11
PLO	627	74	PUL	686	80	RDA	213	24	RIS	1942	241	ROI	147	38	RUC	767	71	SBE	21	13
PLU	218	38	PUM	32	8	RDB	10	5	RIT	2513	250	ROJ	210	13	RUD	125	48	SBI	1	1
PLY	569	24	PUN	110	40	RDE	1258	103	RIU	86	22	ROK	245	23	RUE	312	21	SBO	28	8
PMA	20	10	PUP	67	12	RDH	1	1	RIV	1085	80	ROL	937	105	RUF	44	9	SBR	3	3
PME	584	10	PUR	716	79	RDI	643	91	RIW	2	2	ROM	5177	129	RUG	237	27	SBU	68	23
PNO	6	3	PUS	191	18	RDL	180	21	RIX	3	2	RON	1558	211	RUH	3	2	SBY	21	7
PNE	15	7	PUT	804	55	RDM	6	3	RIY	1	1	ROO	1074	122	RUI	200	41	SCA	637	120
PNI	2	1	PUY	1	1	RDN	11	6	RIZ	289	66	ROP	1618	186	RUJ	14	2	SCE	438	100
PNO	5	5	PUZ	44	6	RDO	58	26	RJA	1	1	ROQ	14	3	RUK	2	2	SCH	1209	148
POA	5	5	PVT	1	1	RDR	13	6	RJE	1	1	ROR	220	26	RUL	302	20	SCI	639	63
POB	1	1	PWA	34	3	RDS	989	92	RJO	1	1	ROS	1109	161	RUM	320	81	SCL	114	16
POC	105	20	PWI	3	1	RDT	9	5	RJU	3	1	ROT	882	122	RUN	582	63	SCO	867	157
POD	40	12	PWO	1	1	RDU	9	5	RKA	101	10	ROU	4065	193	RUO	3	3	SCR	869	149
POE	401	15	PWR	3	2	RDW	19	7	RKB	8	1	ROV	1406	92	RUP	210	52	SCS	7	1
POF	4	3	PYA	1	1	RDY	70	10	RKD	1	1	ROW	1301	128	RUR	58	3	SCU	395	54
POG	16	7	PYB	1	1	REA	7532	400	RKE	841	62	ROX	132	18	RUS	874	125	SDA	147	16
POH	13	2	PYC	1	1	REB	203	42	RKH	13	5	ROY	225	24	RUT	265	40	SDE	14	5
POI	909	56	PYE	1	1	REC	3219	296	RKI	254	27	ROZ	40	8	RUV	2	1	SDI	44	5
POK	189	16	PYH	1	1	RED	5130	557	RKL	23	12	RPA	37	15	RUW	2	2	SDO	45	2
POL	1396	157	PYI	11	4	REE	2771	191	RKM	17	5	RPE	154	50	RUX	3	2	SDU	12	2
POM	22	14	PYK	2	1	REF	1236	124	RKN	47	3	RPH	56	22	RUY	1	1	SEA	875	74
PON	1526	101	PYL	9	5	REG	1108	120	RKO	11	4	RPI	30	14	RUZ	8	1	SEB	75	13
POO	307	28	PYN	1	1	REH	153	39	RKP	3	2	RPL	123	17	RVA	349	45	SEC	1477	86
POP	385	32	PYO	2	2	REI	423	69	RKR	4	1	RPM	5	1	RVE	926	79	SED	3211	234
POR	2537	184	PYR	18	11	REJ	111	19	RKS	355	34	RPN	1	1	RVI	857	76	SEE	2335	62
POS	2761	157	PYS	2	2	REK	7	6	RKT	3	2	RPO	488	53	RVO	55	11	SEF	78	8
POT	475	71	PYT	15	2	REL	2072	185	RKW	8	2	RPR	366	40	RVY	1	1	SEG	110	18
POU	238	45	PYW	1	1	REM	1879	147	RKY	15	5	RPS	127	8	RWA	224	21	SEH	41	7
POV	25	4	QLA	11	1	REN	3001	248	RLA	114	40	RPT	27	6	RWE	23	13	SEI	58	17
POW	580	26	QNS	1	1	REO	242	38	RLB	3	1	RPU	10	4	RWH	32	4	SEK	9	2
POX	4	2	QUA	1261	146	REP	1859	179	RLD	813	7	RPY	1	1	RWI	113	7	SEL	2385	131
POZ	5	2	QUE	1665	195	REQ	728	24	RLE	358	61	RQU	33	15	RWO	23	9	SEM	330	82
PPA	248	22	QUI	1846	173	RER	248	55	RLH	1	1	RRA	444	90	RWR	11	5	SEN	2737	199
PPE	1796	163	QUO	130	17	RES	8709	707	RLI	454	61	RRE	1134	171	RWY	2	2	SEO	8	4
PPI	380	79	QUY	3	3	RET	1706	208	RLM	3	1	RRH	22	8	RXI	3	1	SEP	351	28
PPL	731	65	QVI	1	1	REU	68	22	RLO	109	31	RRI	1243	159	RYA	29	4	SEQ	198	19
PPM	5	2	RAB	621	108	REV	1170	135	RLP	1	1	RRM	1	1	RYB	72	1	SER	2253	185
PPO	1052	57	RAC	2064	262	REW	404	53	RLS	150	6	RRO	566	90	RYC	8	4	SES	2210	262
PPR	741	70	RAD	1349	152	REX	32	10	RLU	10	4	RRS	2	2	RYD	15	3	SET	950	57
PPS	5	3	RAE	30	12	REY	85	21	RLW	2	1	RRU	95	23	RYE	13	5	SEU	73	20
PPU	2	2	RAF	255	40	REZ	8	5	RLY	1243	61	RRV	1	1	RYF	2	1	SEV	680	27
PPY	154	14	RAG	853	116	RFA	316	20	RMA	1412	142	RRY	530	47	RYG	4	2	SEW	140	18
PRA	598	81	RAH	71	14	RFE	206	29	RMB	3	3	RSA	207	37	RYI	349	21	SEX	195	15
PRE	4823	431	RAI	1543	153	RFI	29	11	RMC	6	2	RSB	9	2	RYK	6	2	SEY	94	19
PRI	2175	166	RAJ	4	3	RFL	16	10	RME	759	94	RSC	12	9	RYL	56	14	SEZ	1	1
PRO	7458	519	RAK	40	19	RFM	1	1	RMF	5	2	RSD	40	3	RYM	14	8	SFA	105	9
PRU	41	19	RAL	2927	209	RFO	286	20	RMH	13	4	RSE	1647	133	RYN	6	4	SFE	104	12
PRY	8	3	RAM	1185	138	RFR	12	3	RMI	885	119	RSF	1	1	RYO	126	8	SFI	58	8
PSA	24	5	RAN	3104	439	RFS	3	2	RML	73	9	RSH	473	68	RYP	12	6	SFO	74	12
PSC	1	1	RAO	38	5	RFU	212	25	RMN	4	1	RSI	595	82	RYS	78	22	SFR	2	1
PSE	119	29	RAP	765	192	RGA	567	50	RMO	317	74	RSK	22	7	RYT	190	3	SFU	149	9
PSG	2	1	RAQ	15	4	RGD	1	1	RMP	3	2	RSL	1	1	RYU	8	1	SFY	29	2
PSH	18	8	RAR	523	42	RGE	1685	126	RMS	598	30	RSM	2	1	RYW	53	3	SGA	3	2
PSI	37	21	RAS	555	124	RGH	34	7	RMT	28	1	RSN	2	1	RZA	7	4	SGE	2	2
PSK	3	1	RAT	4968	579	RGI	371	57	RMU	186	16	RSO	861	59	RZE	2	2	SGI	14	3
PSM	1	1	RAU	67	31	RGL	20	10	RMY	142	4	RSP	39	11	RZF	1	1	SGO	2	1
PSN	2	1	RAV	383	77	RGO	125	24	RNA	627	84	RSS	6	2	RZI	2	2	SGR	8	6
PSO	64	13	RAW	407	47	RGR	49	8	RNB	12	5	RST	1969	63	RZK	6	1	SGU	31	8
PST	50	13	RAX	5	4	RGS	12	5	RNE	1397	132	RSU	172	23	RZO	7	3	SHA	1368	166
PSU	14	5	RAY	421	66	RGU	178	16	RNF	10	5	RSV	1	1	RZT	1	1	SHB	8	7
PSW	2	1	RAZ	98	26	RGY	135	8	RNG	1	1	RSW	2	2	RZY	1	1	SHC	71	3
PSY	166	35	RBA	197	45	RHA	339	17	RNH	5	4	RSY	34	4	SAA	15	5	SHE	4474	245
PTA	212	18	RBE	175	42	RHE	60	24	RNI	958	71	RTA	1454	93	SAB	94	36	SHF	13	3
PTC	8	1	RBI	154	36	RHI	18	7	RNK	1	1	RTB	7	3	SAC	198	38	SHM	2	2
PTE	410	29	RBL	39	9	RHO	208	16	RNL	6	2	RTC	8	3	SAD	165	27	SHI	1840	268
SHK	2	2	SOS	4	2	SUV	6	1	TEV	173	9	TOD	307	11	TUS	180	26	UCS	4	2
SHL	40	18	SOT	31	10	SUZ	5	4	TEW	49	16	TOE	60	15	TUT	476	45	UCT	1325	98
SHM	157	26	SOU	1259	62	SVE	15	10	TEX	307	25	TOF	17	7	TUX	10	3	UCU	8	6
SHN	24	16	SOV	208	9	SVI	26	14	TEY	10	4	TOG	399	23	TVA	3	3	UCY	46	2
SHO	3051	148	SOW	13	7	SWA	125	44	TFA	15	9	TOI	49	23	TVI	2	2	UDA	47	14
SHP	1	1	SOX	14	2	SWE	579	55	TFE	1	1	TOJ	1	1	TWA	46	12	UDB	3	1
SHR	125	42	SOY	13	4	SWI	311	40	TFI	41	12	TOK	34	7	TWE	924	19	UDC	1	1
SHT	2	2	SPA	663	91	SWO	75	18	TFL	3	2	TOL	630	55	TWH	3	2	UDD	310	38
SHU	144	37	SPB	1	1	SWR	4	2	TFO	99	10	TOM	840	85	TWI	211	34	UDE	1137	111
SHV	7	1	SPE	2704	225	SWU	49	2	TFR	1	1	TON	1562	267	TWO	1480	18	UDG	341	32
SHW	8	8	SPH	211	38	SYB	3	2	TFU	144	36	TOO	1714	40	TWU	3	3	UDH	1	1
SHY	35	10	SPI	997	119	SYC	154	33	TGA	23	3	TOP	668	58	TYA	14	4	UDI	709	72
SIA	460	63	SPL	253	51	SYD	5	1	TGE	2	2	TOR	3692	460	TYB	2	2	UDK	2	2
SIB	1059	62	SPN	2	1	SYE	1	1	TGN	1	1	TOS	87	21	TYC	3	2	UDL	32	7
SIC	1030	68	SPO	1280	130	SYG	1	1	TGO	24	2	TOT	307	25	TYE	1	1	UDM	2	2
SID	2490	117	SPR	456	52	SYL	72	14	TGR	9	4	TOU	434	61	TYG	1	1	UDN	1	1
SIE	201	63	SPS	8	4	SYM	376	40	TGU	9	2	TOV	24	3	TYI	7	3	UDO	30	12
SIF	113	30	SPU	108	25	SYN	98	41	THA	12733	92	TOW	899	58	TYK	16	1	UDR	1	1
SIG	1253	91	SPY	14	4	SYR	16	10	THB	15	8	TOX	8	6	TYL	137	13	UDS	131	17
SIH	1	1	SQU	379	84	SYS	596	13	THC	12	2	TOY	26	5	TYM	6	4	UDU	6	2
SIK	1	1	SRA	23	6	SYT	7	2	THD	49	6	TOZ	8	2	TYP	475	36	UDW	6	4
SIL	462	60	SRE	28	13	SZE	2	2	THE	91521	416	TPA	2	2	TYR	51	16	UDY	311	9
SIM	788	60	SRH	1	1	SZO	15	2	THF	53	14	TPE	9	3	TYS	6	4	UDZ	1	1
SIN	3159	295	SRI	1	1	TAB	1146	163	THG	1	1	TPH	2	1	TYU	5	1	UEA	15	12
SIO	2989	256	SRO	40	7	TAC	568	79	THH	18	3	TPL	4	2	TYW	1	1	UEB	8	7
SIP	77	16	SRS	3	1	TAD	28	3	THI	8963	129	TPO	29	9	TZA	2	1	UEC	2	2
SIQ	4	2	SRU	22	8	TAF	139	14	THK	1	1	TPR	1	1	TZB	4	1	UED	324	27
SIR	312	15	SSA	755	90	TAG	661	74	THL	115	24	TPU	41	3	TZE	44	8	UEE	93	9
SIS	1385	121	SSB	2	2	TAH	16	7	THM	69	15	TRA	4751	590	TZG	6	1	UEF	5	3
SIT	2279	156	SSC	1	1	TAI	2119	138	THN	20	3	TRE	1984	177	TZH	3	3	UEG	1	1
SIU	18	6	SSE	2173	270	TAK	1357	44	THO	4205	140	TRI	2800	368	TZI	7	2	UEL	169	39
SIV	683	114	SSF	145	8	TAL	2280	250	THP	20	5	TRO	1997	237	TZK	5	3	UEM	7	4
SIX	321	6	SSH	12	7	TAM	153	41	THQ	18	2	TRU	1636	159	TZM	1	1	UEN	674	61
SIZ	240	28	SSI	3647	309	TAN	3126	258	THR	2342	103	TRY	1089	53	TZO	1	1	UEO	14	1
SJO	1	1	SSL	77	35	TAO	14	5	THS	356	41	TRZ	1	1	TZR	1	1	UEP	4	2
SJU	2	1	SSM	108	17	TAP	187	39	THT	9	4	TSA	4	4	TZS	2	1	UER	139	45
SKA	41	13	SSN	43	17	TAQ	1	1	THU	537	43	TSB	31	6	UAB	56	6	UES	1493	88
SKE	575	44	SSO	592	71	TAR	1661	170	THW	88	17	TSC	11	9	UAC	42	11	UET	66	30
SKI	485	91	SSP	6	1	TAS	298	42	THY	345	54	TSD	1	1	UAD	91	21	UEU	2	2
SKJ	15	2	SSR	40	6	TAT	3495	277	TIA	1103	143	TSE	328	11	UAF	1	1	UEV	1	1
SKL	5	1	SSS	3	2	TAU	142	22	TIB	124	43	TSF	5	1	UAG	154	5	UEY	2	2
SKM	2	2	SST	5	4	TAV	26	14	TIC	4361	549	TSH	15	7	UAI	40	7	UEZ	4	3
SKN	1	1	SSU	939	39	TAW	22	13	TID	55	27	TSI	232	10	UAK	33	8	UFA	125	6
SKO	28	11	SSW	16	6	TAX	345	16	TIE	1836	219	TSK	14	7	UAL	2269	131	UFF	526	97

Table 2 (Continued)

	F	V		F	V		F	V		F	V		F	V		F	V		F	V
SKS	70	10	SSY	51	17	TAY	235	7	TIF	693	98	TSL	1	1	UAM	14	3	UFL	5	2
SKU	10	5	STA	7074	475	TBA	57	8	TIG	302	51	TSM	34	13	UAN	155	26	UFN	1	1
SKY	197	37	STB	6	3	TBE	6	3	TIH	2	2	TSU	70	11	UAR	663	64	UFR	1	1
SLA	730	84	STC	14	5	TBI	4	2	TIJ	1	1	TSP	8	2	UAS	26	10	UFS	1	1
SLE	316	64	STD	1	1	TBL	1	1	TIK	2	2	TST	62	10	UAT	736	74	UFT	2	2
SLI	408	52	STE	4671	559	TBO	22	9	TIL	1745	116	TSU	61	5	UAV	7	5	UFU	1	1
SLO	359	48	STF	19	8	TBR	12	7	TIM	3016	134	TSV	2	2	UAW	2	2	UGA	99	24
SLU	89	27	STG	3	1	TBU	10	4	TIN	5618	855	TSW	6	2	UAY	1	1	UGE	178	26
SLY	633	136	STH	65	21	TCA	50	8	TIO	17349	1476	TSY	3	3	UBA	93	13	UGG	492	53
SMA	893	78	STI	4821	529	TCE	9	1	TIP	143	28	TTA	431	68	UBB	153	45	UGH	4152	119
SME	220	37	STL	243	62	TCH	1324	181	TIQ	47	13	TTE	3441	320	UBC	15	5	UGI	9	5
SMI	349	43	STM	185	22	TCL	12	6	TIR	509	42	TTG	1	1	UBD	25	7	UGL	71	11
SMO	200	47	STN	14	7	TCO	50	7	TIS	973	147	TTH	5	2	UBE	123	35	UGM	12	3
SMS	64	17	STO	2724	261	TCR	7	3	TIT	1284	141	TTI	950	112	UBF	1	1	UGN	3	3
SMU	23	10	STP	26	7	TCU	3	2	TIU	9	8	TTL	1389	65	UBG	9	2	UGO	22	4
SMY	4	1	STR	5097	480	TCY	8	1	TIV	2885	311	TTM	1	1	UBH	6	2	UGR	1	1
SNA	179	32	STS	1246	197	TDA	3	1	TIZ	183	35	TTO	297	40	UBI	66	21	UGS	59	11
SNE	139	54	STU	1340	101	TDI	4	2	TJO	1	1	TTR	174	20	UBJ	298	10	UGU	99	16
SNI	23	14	STV	1	1	TDO	44	7	TKA	2	2	TTS	88	10	UBK	2	1	UHA	3	3
SNO	133	27	STW	39	12	TDR	2	2	TKI	10	4	TTU	8	4	UBL	1189	54	UHH	4	1
SNU	16	9	STY	240	37	TEA	870	82	TKO	2	2	TTV	2	2	UBM	122	15	UHI	1	1
SNY	2	2	SUA	586	34	TEB	12	7	TKU	1	1	TTW	1	1	UBN	1	1	UHL	1	1
SOA	59	9	SUB	1066	153	TEC	728	49	TLA	153	25	TTY	194	20	UBO	33	10	UHM	2	1
SOB	56	17	SUC	1715	31	TED	8468	920	TLE	1991	173	TTZ	1	1	UBP	6	5	UHN	3	3
SOC	1077	52	SUD	206	8	TEE	900	84	TLI	136	46	TUA	1018	74	UBR	16	13	UHR	4	3
SOD	48	14	SUE	401	21	TEF	52	12	TLO	48	5	TUB	137	26	UBS	444	66	UHS	1	1
SOE	11	4	SUF	276	23	TEG	222	32	TLY	1943	168	TUC	70	14	UBT	269	26	UHT	1	1
SOF	150	18	SUG	307	12	TEH	12	5	TMA	94	29	TUD	1122	51	UBU	78	12	UIA	4	2
SOG	4	2	SUH	4	4	TEI	115	29	TME	818	51	TUE	149	11	UBV	6	5	UIB	6	5
SOH	7	3	SUI	263	30	TEK	7	3	TMI	25	3	TUF	49	8	UBW	8	2	UIC	225	23
SOI	90	12	SUK	8	4	TEL	1699	142	TMO	141	12	TUG	14	6	UCA	340	16	UID	251	26
SOJ	9	3	SUL	685	59	TEM	1793	95	TNA	10	3	TUH	2	2	UCC	393	26	UIE	156	18
SOK	9	4	SUM	761	62	TEN	3809	374	TNE	240	48	TUI	48	8	UCE	572	48	UIF	1	1
SOL	983	126	SUN	397	41	TEO	77	22	TNI	29	6	TUL	64	29	UCH	2507	49	UIG	1	1
SOM	2944	79	SUO	37	2	TEP	371	29	TNO	12	3	TUM	186	37	UCI	200	41	UIL	647	48
SON	2735	248	SUP	1128	108	TER	12399	1140	TNU	13	5	TUN	418	54	UCK	515	98	UIM	1	1
SOO	233	11	SUR	2149	148	TES	2702	318	TOA	32	9	TUO	45	17	UCL	169	15	UIN	277	52
SOP	230	31	SUS	367	43	TET	69	27	TOB	82	7	TUP	53	10	UCO	19	8	UIO	2	1
SOR	734	107	SUT	8	3	TEU	47	11	TOC	305	40	TUR	4318	270	UCR	24	10	UIP	208	7
UIR	629	36	UOD	1	1	UTG	15	5	VES	1775	166	WAY	2351	93	WN8	1	1	WYO	9	1
UIS	407	76	UOH	1	1	UTH	1292	89	VET	105	31	WAZ	2	2	WNC	2	1	WZY	1	1
UIT	840	89	UOI	6	3	UTI	1449	146	VEV	2	2	WBA	8	5	WND	2	2	XAB	8	1
UIU	2	1	UOK	1	1	UTL	108	24	VEW	16	3	WBE	7	5	WNE	186	26	XAC	144	10
UIV	75	10	UOL	3	2	UTM	21	9	VEX	9	7	WBI	5	3	WNF	5	1	XAG	34	7
UIX	6	2	UOM	1	1	UTN	8	5	VEY	146	23	WBO	32	8	WNG	4	2	XAL	16	9
UIZ	6	4	UON	2	2	UTO	391	60	VEZ	4	1	WBR	1	1	WNH	6	1	XAM	478	19
UJA	2	2	UOR	69	10	UTP	49	9	VIA	169	49	WBU	11	4	WNI	41	14	XAN	67	7
UJI	17	4	UOS	5	3	UTR	137	28	VIB	18	8	WCA	6	3	WNL	3	2	XAP	5	1
UJO	5	4	UOT	68	13	UTS	447	50	VIC	1007	62	WCE	1	1	WNP	4	2	XAR	1	1
UJU	1	1	UOU	185	34	UTT	401	92	VID	1437	48	WCO	14	2	WNR	8	1	XAS	79	6
UKA	8	4	UOV	1	1	UTU	294	9	VIE	808	67	WCU	1	1	WNS	124	25	XAT	21	5
UKE	42	13	UOY	5	4	UTW	22	7	VIF	4	4	WDA	2	2	WNT	47	5	XAV	1	1
UKH	6	2	UPA	71	14	UTY	159	5	VIG	84	20	WDE	88	13	WNU	3	1	XAZ	1	1
UKI	2	2	UPB	6	4	UTZ	4	3	VIK	6	3	WDI	6	2	WNW	19	2	XBO	1	1
UKK	1	1	UPC	2	2	UUM	30	4	VIL	635	93	WDL	3	2	WNY	10	4	XBR	1	1
UKL	1	1	UPD	4	2	UUN	1	1	VIM	1	1	WDO	6	3	WOB	9	5	XCA	14	5
UKR	4	2	UPE	302	70	UUT	1	1	VIN	1615	155	WDR	3	2	WOD	1	1	XCE	510	26
UKT	2	2	UPF	3	1	UVA	10	5	VIO	670	43	WDS	12	1	WOE	9	4	XCH	90	5
UKU	2	2	UPG	6	3	UVE	63	20	VIP	1	1	WDU	3	1	WOF	4	1	XCI	108	10
ULA	1671	248	UPH	35	16	UVI	6	4	VIR	309	27	WDY	8	3	WOH	4	3	XCL	125	15
ULB	17	6	UPI	164	21	UVO	7	2	VIS	1114	138	WEA	564	61	WOK	23	2	XCO	6	3
ULC	23	12	UPK	6	1	UVR	2	1	VIT	697	75	WEB	18	7	WOL	47	17	XCR	3	2
ULD	5356	24	UPL	200	19	UWA	2	2	VIU	1	1	WEC	2	2	WOM	433	12	XCU	40	8
ULE	402	61	UPM	1	1	UXA	5	1	VIV	208	33	WED	784	74	WON	294	14	XEC	112	11
ULF	91	19	UPO	514	8	UXB	1	1	VIY	1	1	WEE	1397	42	WOO	338	77	XED	188	18
ULG	48	16	UPP	906	57	UXE	17	7	VIZ	1	1	WEG	8	3	WOP	2	2	XEG	1	1
ULI	204	45	UPR	88	14	UXI	10	2	VKH	1	1	WEI	218	41	WOR	3445	140	XEI	1	1
ULK	71	18	UPS	234	29	UXL	6	1	VLA	1	1	WEL	1345	92	WOS	3	2	XEL	16	4
ULL	1108	155	UPT	209	44	UXO	1	1	VLE	1	1	WEM	2	1	WOT	1	1	XEM	28	9
ULM	47	11	UPU	8	4	UXT	7	4	VLO	3	3	WEN	674	15	WOU	2777	8	XEN	18	8
ULN	65	25	UPW	33	2	UXU	31	4	VNE	1	1	WEP	43	2	WOV	16	3	XER	142	15
ULO	99	37	UPY	25	3	UYE	7	2	VOC	211	43	WER	4611	89	WOW	1	1	XES	110	18
ULP	59	19	UQU	8	5	UYI	31	2	VOE	2	1	WES	562	39	WOZ	1	1	XET	4	1
ULS	169	39	URA	1113	126	UYL	10	2	VOG	6	1	WET	70	13	WPA	2	1	XEY	1	1
ULT	1678	140	URB	271	47	UYN	2	2	VOI	412	19	WEV	552	1	WPH	2	1	XFD	19	2
ULU	53	9	URC	874	35	UYS	36	4	VOK	48	11	WEX	6	1	WPI	1	1	XHA	38	12
ULV	6	4	URD	329	33	UYT	1	1	VOL	826	82	WEY	9	3	WPO	47	4	XHI	86	9
ULW	5	1	URE	4397	271	UYU	3	1	VOM	5	3	WFA	2	1	WPU	1	1	XHL	1	1
ULY	155	6	URF	241	12	UYV	1	1	VON	17	6	WFE	1	1	WRA	54	16	XHO	4	3
ULZ	4	2	URG	336	80	UZA	2	2	VOO	10	4	WFI	2	2	WRE	98	23	XHU	2	2
UMA	460	43	URH	1	1	UZE	4	3	VOP	1	1	WFL	1	1	WRI	736	44	XIA	9	7
UMB	955	89	URI	1381	145	UZO	3	3	VOR	364	45	WFO	8	4	WRO	326	10	XIB	44	3
UMC	2	2	URK	84	19	UZU	1	1	VOS	7	6	WFU	32	5	WRT	1	1	XIC	85	14
UMD	2	2	URL	99	37	UZY	1	1	VOT	294	20	WGR	2	1	WRY	14	6	XID	35	8
UME	889	81	URM	78	20	UZZ	93	19	VOV	67	22	WGU	1	1	WSA	2	2	XIE	57	8
UMF	6	3	URN	1618	97	VAB	63	20	VOW	26	7	WHA	2176	18	WSB	2	1	XIG	3	2
UMH	1	1	URO	255	33	VAC	144	27	VOY	35	10	WHE	4095	50	WSE	5	3	XII	1	1
UMI	172	44	URP	491	32	VAD	54	20	VRA	1	1	WHI	4961	87	WSH	40	3	XIL	18	6
UML	6	6	URQ	3	1	VAE	6	1	VRE	11	4	WHO	3041	27	WSI	3	3	XIM	213	19
UMM	301	54	URR	623	85	VAG	119	21	VRI	1	1	WHR	3	1	WSK	8	5	XIN	62	13
UMN	151	11	URS	1351	98	VAH	3	3	VRO	8	3	WHS	1	1	WSL	7	3	XIO	61	11
UMO	126	14	URT	915	68	VAI	340	19	VSH	2	1	WHY	406	3	WSM	5	2	XIS	388	18
UMP	391	80	URU	4	4	VAK	6	2	VSK	16	10	WIA	1	1	WSO	7	5	XIT	30	7
UMS	203	35	URV	279	28	VAL	1190	110	VUB	5	1	WIC	186	29	WSP	110	4	XLE	18	4
UMT	2	1	URW	1	1	VAM	6	4	VUE	10	1	WID	318	25	WSR	1	1	XLY	2	1
UMU	61	11	URY	439	26	VAN	646	82	VUH	1	1	WIE	9	7	WSS	1	1	XMI	1	1
UMV	4	1	URZ	5	1	VAO	1	1	VUL	58	17	WIF	283	8	WST	4	2	XNA	1	1
UNA	366	80	USA	278	32	VAP	20	7	VUR	3	3	WIG	28	10	WSU	2	2	XNE	2	1
UNB	59	27	USB	151	6	VAQ	1	1	VUS	4	3	WIL	2845	71	WSW	2	2	XOO	6	2
UNC	1118	182	USC	132	24	VAR	694	50	VVE	1	1	WIM	56	5	WSY	1	1	XOG	3	2
UND	4728	346	USD	1	1	VAS	185	33	VVY	1	1	WIN	1649	162	WSZ	1	1	XOM	3	2
UNE	394	73	USE	3980	178	VAT	581	72	VYI	4	2	WIP	39	6	WTH	165	6	XON	61	10
UNF	163	47	USF	4	1	VAU	25	10	VYL	1	1	WIR	99	14	WTI	3	1	XOP	5	2
UNG	870	77	USH	509	82	VAY	3	3	VZO	1	1	WIS	696	53	WTO	9	3	XOR	8	4
UNH	69	18	USI	1679	126	VCH	1	1	WAB	13	5	WIT	8569	62	WTS	1	1	XOS	1	1
UNI	2684	132	USK	43	14	VDI	1	1	WAC	10	6	WIV	32	4	WTU	6	2	XOT	14	4
UNJ	8	5	USL	565	104	VEA	112	10	WAD	45	10	WIZ	3	1	WUH	1	1	XPA	164	15
UNK	236	55	USM	8	4	VEB	1	1	WAF	2	2	WKE	7	4	WUL	17	2	XPE	1367	58
UNL	255	32	USN	65	18	VEC	37	5	WAG	246	20	WKI	5	4	WUM	2	2	XPI	13	6
UNM	48	25	USO	19	7	VED	1782	82	WAH	3	3	WKS	12	3	WUN	48	1	XPL	446	42
UNN	319	52	USP	179	22	VEE	9	5	WAI	379	30	WKW	17	3	WUP	1	1	XPO	117	20
UNO	34	16	USQ	1	1	VEF	1	1	WAK	85	14	WKY	1	1	WUR	5	5	XPR	281	21
UNP	98	43	USS	561	53	VEG	38	7	WAL	840	67	WLA	1	1	WUS	2	2	XPU	7	4
UNQ	18	7	UST	3673	241	VEH	98	9	WAM	18	8	WLE	250	30	WWA	1	1	XQU	7	3
UNR	93	46	USU	380	8	VEI	63	12	WAN	769	41	WLI	33	13	WWW	1	1	XRO	6	1
UNS	353	103	USY	76	5	VEJ	3	1	WAP	3	2	WLS	17	7	WYA	3	1	XSE	3	1
UNT	2467	191	UTA	125	42	VEL	2018	187	WAR	2254	166	WLT	2	1	WYC	5	5	XTA	10	3
UNU	86	7	UTB	26	8	VEM	429	16	WAS	10245	33	WLY	153	6	WYE	70	4	XTB	5	2
UNV	5	3	UTC	121	26	VEN	3334	212	WAT	912	65	WMA	38	8	WYK	1	1	XTE	449	34
UNW	78	26	UTD	50	9	VEO	14	3	WAU	9	1	WME	10	5	WYL	2	1	XTH	26	1
UNY	13	5	UTE	1136	122	VEP	3	1	WAV	187	16	WMI	1	1	WYM	1	1	XTI	74	10
UNZ	1	1	UTF	32	10	VER	9584	602	WAX	23	6	WNA	1	1	WYN	5	5	XTO	13	4

Table 2 (Continued)

	F	V		F	V		F	V		F	V
XTR	293	40	YGA	1	1	YPL	1	1	ZEM	14	4
XTS	8	3	YGE	46	2	YPN	4	4	ZEN	260	21
XTU	66	9	YGI	4	2	YPO	109	26	ZER	108	35
XTY	21	1	YGM	3	1	YPR	16	5	ZES	99	43
XUA	75	6	YGN	1	1	YPS	10	5	ZET	11	2
XUB	11	3	YGO	12	6	YPT	33	8	ZEY	1	1
XUD	2	1	YGR	4	1	YRA	65	18	ZFE	1	1
XUL	4	2	YGU	1	1	YRD	10	2	ZGE	6	1
XUR	36	5	YGY	1	1	YRE	20	7	ZHA	1	1
XVI	1	1	YHE	1	1	YRI	65	22	ZHE	1	1
XWE	11	1	YHO	47	13	YRN	2	1	ZHI	2	2
XWO	2	2	YHR	1	1	YRO	179	29	ZHO	1	1
XXX	2	1	YHY	1	1	YRR	2	1	ZHU	1	1
XYU	5	1	YID	4	1	YRS	1	1	ZIA	2	2
XYG	46	2	YIE	64	5	YRT	1	1	ZIB	2	2
XYH	1	1	YIN	1182	136	YRU	15	4	ZIC	3	2
XYL	6	3	YIP	1	1	YRZ	1	1	ZID	2	1
XYM	1	1	YIS	10	7	YSA	1	1	ZIE	42	13
XYT	3	1	YJA	2	2	YSd	2	1	ZIF	2	1
YAB	22	7	YKA	17	2	YSC	7	5	ZIG	6	3
YAC	16	9	YKE	10	4	YSE	162	13	ZIL	19	6
YAD	2	2	YKI	5	3	YSI	442	41	ZIM	4	2
YAG	25	5	YKN	2	1	YSL	3	1	ZIN	339	99
YAH	1	1	YLA	53	18	YSM	3	2	ZIO	12	7
YAJ	1	1	YLB	1	1	YSO	8	6	ZIP	3	3
YAK	4	4	YLE	155	20	YSP	2	2	ZIR	1	1
YAL	153	19	YLG	2	1	YSS	18	5	ZIS	13	2
YAM	5	3	YLI	89	21	YST	839	64	ZIT	3	2
YAN	180	39	YLK	7	1	YSU	5	3	ZKC	7	2
YAP	1	1	YLL	32	12	YTE	33	13	ZKY	4	2
YAQ	1	1	YLO	51	15	YTH	629	27	ZLE	77	27
YAR	178	27	YLP	2	2	YTI	63	15	ZLI	26	7
YAS	5	4	YLS	9	5	YTO	37	8	ZLO	1	1
YAT	19	3	YLT	1	1	YTR	1	1	ZLY	2	2
YAU	1	1	YLU	5	2	YTT	7	3	ZMA	2	2
YAW	7	5	YLV	51	5	YUB	3	2	ZME	1	1
YBA	3	3	YLY	15	6	YUC	2	2	ZOA	13	3
YBE	157	10	YMA	39	17	YUG	12	2	ZUD	3	1
YBI	2	1	YMB	165	11	YUH	2	1	ZOE	5	3
YBO	127	10	YME	282	37	YUJ	1	1	ZOG	1	1
YBR	7	4	YMI	7	5	YUK	6	2	ZOI	1	1
YBU	51	7	YMM	22	7	YUN	2	2	ZOL	16	3
YBY	1	1	YMN	36	7	YUR	7	2	ZOM	2	2
YCA	2	2	YMO	75	16	YUS	11	4	ZON	91	18
YCE	46	14	YMP	209	31	YVA	3	1	ZOO	19	10
YCH	160	34	YMS	5	2	YVE	2	1	ZOP	6	1
YCI	7	3	YMU	2	1	YVI	2	2	ZOR	17	3
YCK	3	3	YMY	2	2	YWA	90	9	ZOS	3	2
YCL	69	21	YNA	68	22	YWE	4	3	ZOT	2	2
YCO	25	17	YNB	9	1	YWH	86	2	ZOU	2	1
YCR	3	1	YNC	20	12	YWI	10	3	ZOV	5	2
YDA	18	3	YND	18	9	YWO	39	5	ZOW	1	1
YDE	10	6	YNE	101	28	YWR	6	4	ZRA	2	1
YDI	8	3	YNG	2	2	YYY	2	1	ZRI	1	1
YDN	7	2	YNH	3	1	YZA	8	4	ZRO	1	1
YDO	2	2	YNI	18	5	YZE	40	10	ZSC	2	1
YDR	88	32	YNK	2	2	YZI	8	1	ZUB	2	1
YEA	1675	17	YNN	12	6	ZAA	11	3	ZUE	5	2
YEB	18	5	YNO	68	17	ZAB	64	9	ZUK	1	1
YEO	513	53	YNS	1	1	ZAC	3	2	ZUR	14	5
YEE	89	2	YNT	48	15	ZAD	3	2	ZUS	1	1
YEF	1	1	YNX	1	1	ZAE	1	1	ZUT	1	1
YEG	3	1	YOC	6	4	ZAG	9	3	ZVE	1	1
YEH	3	2	YOD	4	3	ZAH	1	1	ZVO	7	1
YEI	5	2	YOF	7	5	ZAI	4	1	ZWE	2	2
YEK	1	1	YOG	4	3	ZAK	3	2	ZWK	1	1
YEL	121	23	YOK	21	9	ZAL	20	7	ZWO	2	1
YEN	13	7	YOL	5	2	ZAN	24	14	ZYB	2	1
YEP	1	1	YOM	9	1	ZAP	2	2	ZYC	1	1
YER	367	50	YON	454	21	ZAR	67	25	ZYG	7	2
YES	668	15	YOO	4	3	ZAS	4	4	ZYK	1	1
YET	453	11	YOP	3	3	ZAT	509	84	ZYM	21	3
YEV	8	6	YOR	367	14	ZBE	3	1	ZYN	2	2
YEW	2	1	YOS	6	4	ZBO	4	1	ZZA	39	10
YEZ	2	1	YOT	11	4	ZEA	20	6	ZZE	10	7
YFA	2	1	YOU	4899	19	ZEB	2	2	ZZI	38	12
YFE	4	1	YOV	13	2	ZEC	6	2	ZZL	103	35
YFF	3	2	YOW	19	2	ZED	748	161	ZZM	1	1
YFI	1	1	YOX	2	1	ZEE	16	2	ZZO	15	4
YFL	4	1	YPA	4	2	ZEF	1	1	ZZU	1	1
YFO	8	3	YPE	382	31	ZEI	4	3			
YFR	1	1	YPH	18	9	ZEK	2	2			
YFU	6	4	YPI	98	10	ZEL	12	9			

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