

PLUVIOMETRIA DE CHILE

ANEXO 1

HOYAS HIDROGRÁFICAS N°. 500's y 600's
Cosapilla (501), Lauca (502), Cosca Oyahue (507), Pampa
del Tamarugal (604), Laguna del Huasco (605), Salar de
Ascotan (608), San Pedro de Atacama (612)

OCTUBRE 1971

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Ing° Civil U.C.

DEPARTAMENTO DE RECURSOS HIDRAULICOS
CORFO

ESTADÍSTICAS PLUVIOMÉTRICAS

Anexo 1.

El presente Anexo contiene las estadísticas pluviométricas mensuales y anuales de un total de ochocientas cincuenta estaciones, cuyo catastro e índice se incluye entre las páginas 1 a 40 del Tomo I de esta publicación.

Las estaciones en este Anexo, se presentan ordenadas de acuerdo al número secuencial de identificación de cada estación por división hidrográfica. Las divisiones hidrográficas, a su vez, se encuentran ordenadas en el orden secuencial de su nomenclatura.

Esta Publicación consta de un Tomo y dos Anexos.-

El autor expresa su reconocimiento al Ingeniero Sr. Octavio Castillo Urrutia,
que contribuyó valiosamente a la realización de esta publicación

Los antecedentes pluviométricos con
tenidos en esta publicación fueron proporcionados por
ENDESA, Oficina Meteorológica y Dirección de Aguas del
Ministerio de Obras Públicas y Transporte.

PRECIPITACIONES (MM)

ZCNA 1 HCYA 501 CCSA PILLA SUP 1296 (KV2)
 EST 1 VISVIRI PROP OMC TIPIC PV
 LAT 1737 LCN 6930 ALT 4067 (MTS)

ANC	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1940	60.0	0.0	4.0	11.0	0.0	0.0	0.0	0.0	0.0	11.0	0.0	8.0	94.0
1941	35.0	0.0	5.0	1.0	0.0	3.0	0.0	0.0	0.0	13.8	0.0	6.5	160.1
1942	80.5	1.2	13.8	1.0	2.7	0.0	0.0	0.0	0.0	0.0	0.0	41.5	154.2
1943	44.1	14.9	5.4	1.0	0.0	0.0	0.0	0.0	0.0	3.0	3.4	25.7	285.8
1944	84.0	98.0	27.0	13.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	83.0	207.0
1945	57.2	25.8	61.0	5.5	0.0	0.0	0.0	0.0	0.0	2.1	0.0	42.0	235.0
1946	64.8	104.0	13.8	13.5	0.0	0.0	0.0	0.0	0.0	0.6	17.3	108.9	222.9
1947	66.3	49.9	7.2	11.0	4.8	0.0	0.0	0.0	2.2	5.5	5.9	32.9	210.7
1948	61.0	62.2	112.0	7.0	30.2	8.5	0.0	0.0	0.0	3.5	0.0	11.7	396.8
1949	217.0	91.0	70.0	7.0	0.0	4.7	0.0	0.0	17.1	2.0	4.4	38.0	470.9
1950	47.0	79.7	24.8	12.5	0.0	0.0	5.7	0.0	0.0	14.0	47.8	40.2	275.7
1951	52.2	54.0	21.4	11.0	0.0	0.0	0.0	34.3	0.0	0.0	0.0	37.5	275.1
1952	113.5	77.9	8.0	4.0	0.0	1.4	0.0	11.6	0.0	0.0	0.0	34.0	364.0
1953	113.5	95.9	87.7	2.4	0.0	0.0	0.0	0.0	2.6	1.0	6.0	19.0	365.4
1954	114.0	138.4	63.5	2.2	0.0	0.0	0.0	0.0	3.3	0.0	4.9	80.3	406.5
1955	95.5	93.3	8.0	4.0	0.0	0.0	0.0	7.0	0.0	0.0	0.0	22.0	208.0
1956	95.5	112.0	46.8	1.5	0.0	0.0	0.0	0.0	12.4	0.0	7.2	47.7	361.0
1957	129.3	110.7	75.6	1.6	10.6	0.0	0.0	0.0	12.2	0.0	11.1	53.2	372.7
1958	55.4	110.7	31.4	2.2	0.0	0.0	0.0	3.4	0.0	0.0	9.5	40.0	203.0
1959	54.0	59.4	31.4	2.2	0.0	0.0	0.0	0.0	13.1	0.0	0.0	18.7	130.8
1960	48.0	43.0	2.0	0.0	23.7	0.0	0.0	0.0	0.0	8.4	22.0	14.3	147.8
1961	0.0	43.0	2.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	0.0	38.0	-1.0
1962	46.0	47.0	8.0	0.0	20.0	0.0	0.0	0.0	0.0	0.0	29.1	2.2	262.5
1963	57.0	73.0	4.5	0.0	20.0	0.0	0.0	0.0	0.0	2.0	2.0	2.2	94.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.2	470.9
MAX	217.0	149.7	112.0	22.0	30.2	12.4	5.7	34.3	22.0	20.2	67.0	117.7	270.7
PROM	74.6	74.0	41.0	6.0	4.0	3.5	1.1	7.7	6.2	5.7	17.0	25.1	100.8
DESV	43.2	38.0	33.0	6.0	8.0	3.5	2.2	3.0	3.1	5.7	17.0	25.1	100.8
CV	0.6	0.5	0.8	0.9	2.1	2.1	2.8	3.0	2.0	1.4	1.6	0.7	0.4

855.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCORRECCIONADOS

PRECIPITACIONES (MM)

 ZONA I HOYA 501 COSA PILLA SUP 1296 (KM2)
 EST 2 CAQUENA RETEN
 LAT 1803 LON 6913 ALT 4385 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1963	178.0	137.0	146.0	11.0	11.0	2.0	7.0	0.0	42.0	0.0	13.0	111.0	655.0
1964	40.0	119.0	38.0	16.0	8.0	0.0	0.0	19.0	2.0	0.0	11.0	37.0	289.0
1965	70.0	71.0	24.4	11.5	6.5	0.0	1.5	0.0	8.6	0.0	0.0	45.9	239.4
1966	0.0	83.0	16.0	0.0	7.0	0.0	0.0	-1.0	0.0	0.0	7.0	97.0	-1.0
1967	13.0	58.0	90.0	0.0	0.0	0.0	0.0	0.0	6.0	-1.0	0.0	66.0	-1.0
1968	98.0	131.0	66.0	0.0	0.0	0.0	0.0	0.0	0.0	12.3	59.3	34.3	400.9
MIN	0.0	58.0	16.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	34.3	239.4
MAX	178.0	137.0	146.0	16.0	11.0	2.0	7.0	19.0	42.0	12.3	59.3	111.0	655.0
PROM	66.5	99.8	63.4	6.4	5.4	0.3	1.4	3.8	9.8	2.5	15.0	65.2	396.1
DESV	65.5	33.4	48.9	7.2	4.5	0.8	2.8	8.5	16.2	5.5	22.3	32.3	185.4
CV	1.0	0.3	0.8	1.1	0.8	2.4	2.0	2.2	1.7	2.2	1.5	0.5	0.5

856.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2) 857.

EST 1 LAGO COTA COTANI

LAT 1810 LON 6914 ALT 4500 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1960	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	17.8	-1.0
1961	69.3	132.4	38.2	3.0	0.0	0.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
1962	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	78.5	-1.0
1963	112.0	150.0	101.0	24.5	8.0	105.0	4.0	0.0	9.5	0.5	15.0	97.5	522.5
1964	30.0	100.0	66.0	23.5	2.0	0.0	0.0	9.9	1.0	0.0	18.5	81.0	332.9
1965	70.5	64.0	205.0	8.0	0.0	0.0	0.0	0.0	-1.0	0.0	-1.0	-1.0	-1.0
1966	0.5	59.5	19.0	0.0	4.9	0.0	0.0	0.0	0.0	11.5	16.5	34.5	144.4
1967	20.5	98.0	100.0	-1.0	-1.0	-1.0	-1.0	1.5	0.0	-1.0	-1.0	-1.0	-1.0
1968	106.3	163.7	74.6	11.5	2.7	0.2	0.0	0.0	0.9	19.3	46.2	46.8	472.2
MIN	0.5	59.5	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	17.8	144.4
MAX	112.0	163.7	205.0	24.5	8.0	105.0	4.0	9.9	9.5	19.3	46.2	97.5	522.5
PROM	58.4	109.7	86.3	11.8	2.9	17.5	0.7	1.6	1.9	5.2	19.2	59.3	368.0
DESV	42.9	40.6	60.4	10.3	3.1	42.8	1.6	3.7	3.8	8.3	16.8	31.0	169.3
CV	0.7	0.4	0.7	0.9	1.1	2.4	2.4	2.3	2.0	1.6	0.9	0.5	0.5

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

 ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2)
 EST 2 COTACOTANI EN DESAGUE
 LAT 1811 LON 6913 ALT 4674 (MTS)

 ANO ENE FEB MAR ABR MAY JUN JUL AG SEP OCT NOV DIC TOT

 1967 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 1.0 0.0 12.0 0.0 0.0 42.2 -1.0
 1968 114.6 160.8 94.9 5.1 11.2 0.1 0.0 0.0 5.4 22.7 49.7 35.5 500.0
 1969 112.0 126.4 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0 -1.0

858.

7

PRECIPITACIONES (MM)

 ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2) 859.
 EST 3 PARINACOTA RIEGO
 LAT 1811 LON 6917 ALT 4393 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1933	93.0	213.0	116.0	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	423.6
1934	100.4	165.5	184.6	75.9	0.0	0.0	0.0	0.0	0.0	1.4	4.6	28.9	561.3
1935	119.1	83.0	88.1	2.3	0.0	0.0	10.5	0.0	0.0	0.0	4.2	57.9	365.1
1936	92.6	46.8	23.4	9.5	0.0	0.0	0.0	0.0	0.0	0.0	4.3	43.8	220.4
1937	147.4	104.7	25.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.3	297.8
1938	34.9	92.8	67.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.7	1.5	196.7
1939	227.4	118.0	59.2	1.2	0.0	0.0	0.5	2.0	0.0	0.0	0.9	13.2	422.4
1940	39.0	0.0	0.0	11.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.5	82.0
1941	107.0	30.9	0.0	5.6	0.0	0.0	2.7	0.0	2.6	0.0	0.0	62.6	211.4
1942	112.3	8.6	6.0	3.1	0.0	23.7	0.0	0.0	4.7	8.3	0.0	0.0	166.7
1943	71.8	174.8	99.5	2.3	0.0	0.0	0.0	15.7	0.0	0.5	0.0	36.9	401.5
1944	80.9	167.4	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	106.0	389.9
1945	178.5	95.9	0.0	13.5	0.0	0.0	0.0	0.0	22.0	0.0	0.0	6.4	316.3
1946	66.6	92.2	69.1	25.0	7.7	0.0	0.0	0.0	0.0	34.4	224.1	-1.0	-1.0
1947	153.8	45.3	0.0	14.6	0.0	0.0	0.0	0.0	8.9	0.0	21.9	65.1	309.6
1948	61.0	141.0	76.0	0.0	33.0	25.0	0.0	0.0	0.0	3.0	0.0	88.0	427.0
1955	93.5	130.0	139.2	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0	102.6	467.7
1956	55.4	88.8	0.0	0.0	0.0	0.0	0.0	7.5	0.0	0.0	0.0	21.1	172.8
1957	83.1	51.8	39.5	0.0	4.6	0.0	0.0	0.0	0.0	0.0	0.0	20.0	199.0
1958	135.4	91.0	49.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.1	262.1
1959	16.3	109.5	97.1	12.1	0.0	0.0	0.0	0.0	0.0	0.0	3.5	75.2	313.7
1960	98.2	30.0	6.9	24.9	0.0	0.0	0.0	0.0	0.0	-1.0	-1.0	15.4	-1.0
1961	69.3	132.4	44.2	3.0	16.0	0.0	-1.0	-1.0	5.5	13.5	36.8	-1.0	-1.0
1962	117.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0	0.0	-1.0	0.0	12.7	65.2	-1.0
1963	119.5	163.5	118.5	25.5	9.0	0.0	2.5	0.0	10.5	0.0	20.0	26.5	395.5
1964	3.5	126.0	78.0	17.0	0.0	0.0	0.0	13.3	0.5	0.0	10.5	76.5	325.3
1965	59.5	34.5	17.5	6.0	0.0	0.0	0.0	3.5	13.5	0.0	0.0	22.4	156.9
1966	0.0	93.0	15.0	0.5	13.0	0.0	0.0	0.0	0.0	7.5	21.6	39.3	199.9
1967	32.4	115.3	93.1	16.9	0.0	1.0	0.4	0.0	9.9	0.0	0.0	36.5	305.5
1968	135.1	151.8	72.7	2.3	1.3	0.0	0.0	0.0	0.6	14.6	35.7	26.3	440.4
1969	103.8	81.4	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	82.0
MAX	227.4	213.0	184.6	75.9	33.0	25.0	10.5	15.7	22.0	34.4	224.1	106.0	561.3
PROM	90.6	99.3	55.9	9.5	3.0	1.7	0.6	1.4	2.7	2.9	14.2	39.8	308.9
DESV	50.4	52.6	48.2	15.2	7.1	6.3	2.0	3.9	5.3	7.3	41.8	30.2	116.9
CV	0.6	0.5	0.9	1.6	2.4	3.7	3.5	2.7	2.0	2.5	2.9	0.8	0.4

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2)

EST 4 PARINACOTA ENDESA

LAT 1812 LON 6916 ALT 4393 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1964	-1.0	120.0	75.5	17.0	0.0	0.0	0.0	13.3	0.5	0.0	10.5	76.5	-1.0
1965	59.5	45.5	22.5	6.0	0.0	0.0	0.0	3.5	18.0	0.0	0.0	22.4	192.4
1966	0.5	59.5	15.0	0.0	4.9	0.0	0.0	0.0	0.0	7.5	21.6	39.3	148.3
1967	32.4	115.3	93.1	16.9	0.0	1.0	0.4	0.0	9.9	0.0	0.0	36.5	305.5
1968	144.9	166.1	73.8	2.7	1.3	0.0	0.0	0.0	0.6	15.8	38.3	28.1	471.6
MIN	0.5	45.5	15.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.4	148.3
MAX	144.9	166.1	93.1	17.0	4.9	1.0	0.4	13.3	18.0	15.8	38.3	76.5	471.6
PROM	59.3	101.3	56.0	8.5	1.2	0.2	0.1	3.4	5.8	4.7	14.1	40.6	279.4
DESV	61.9	49.0	34.9	8.0	2.1	0.4	0.2	5.8	8.0	7.0	16.2	21.2	144.2
CV	1.0	0.5	0.6	0.9	1.7	2.2	2.2	1.7	1.4	1.5	1.2	0.5	0.5

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2)

EST 5 LAUCA EN CHUCUYO

LAT 1815 LON 6922 ALT 4200 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1960	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	42.7	17.8	-1.0
1961	69.8	132.4	44.2	0.0	0.0	0.0	0.0	0.8	6.0	-1.0	-1.0	-1.0	-1.0
1962	-1.0	45.5	28.7	23.0	-1.0	-1.0	-1.0	-1.0	0.0	-1.0	0.0	0.0	-1.0
1963	108.7	171.5	138.0	-1.0	3.4	-1.0	0.0	0.0	13.4	1.1	12.0	57.5	-1.0
1964	36.3	87.4	58.8	19.8	0.0	0.0	0.0	-1.0	-1.0	0.0	-1.0	-1.0	-1.0
1965	-1.0	-1.0	-1.0	-1.0	0.0	-1.0	0.0	0.0	-1.0	-1.0	-1.0	-1.0	-1.0

861.

PRECIPITACIONES (MM)

ZCNA 1 HCYA 502 LAUCA SLP 2275 (KM2)

EST E CHAFIQUINA FRCF OMC TIPC PV

LAT 1817 LON 6926 ALT 4660 (MTS)

ANC	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1963	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.0	12.0
1964	0.0	5.0	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	55.0	83.0
1965	40.8	43.7	43.0	0.0	0.0	0.0	0.0	0.0	7.2	0.0	0.0	0.0	134.7
1966	0.0	25.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	22.0	61.1
1967	10.0	104.0	44.0	12.0	0.0	0.0	6.0	0.0	0.0	0.0	0.0	24.0	200.0
1968	68.0	66.0	61.0	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.5	10.5	207.8
MIN	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.0
MAX	68.0	104.0	61.0	12.0	0.0	0.0	6.0	0.0	7.2	1.8	2.1	55.0	207.8
PRCM	19.8	42.1	29.8	2.0	0.0	0.0	1.0	0.0	1.2	0.3	0.4	15.8	116.4
DESV	28.4	37.9	23.1	4.9	0.0	0.0	2.4	0.0	2.9	0.7	0.8	21.5	78.4
CV	1.4	0.9	0.8	2.4	-1.0	-1.0	2.4	-1.0	2.4	2.4	1.9	1.1	0.7

362.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCORRIJOS

PRECIPITACIONES (MM)

 ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2)
 EST 7 CHUCUYO RETEN
 LAT 1830 LON 6915 ALT 4200 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1960	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	41.7	18.8	-1.0
1961	69.8	132.4	44.2	0.0	0.0	0.0	0.0	0.0	0.8	6.0	10.7	-1.0	263.9
1962	48.0	175.7	28.7	23.0	-1.0	-1.0	0.0	0.0	0.0	0.0	13.7	29.7	318.8
1963	-1.0	-1.0	115.0	0.0	3.4	0.0	0.0	0.0	13.4	1.1	12.0	55.5	481.4
1964	38.8	113.9	58.8	19.8	0.0	0.0	0.0	5.2	0.5	0.0	17.5	78.7	333.2
1965	54.2	50.0	24.0	-1.0	-1.0	-1.0	0.0	4.0	21.0	0.0	1.5	16.0	-1.0
1966	4.5	81.3	23.6	0.0	5.0	0.0	0.0	0.0	0.0	10.0	27.7	42.0	194.1
1967	34.5	117.7	100.7	9.8	0.0	2.5	0.0	0.0	1.6	0.5	0.0	45.2	312.5
1968	-1.0	-1.0	103.3	0.0	0.0	0.0	0.0	0.0	0.0	17.3	-1.0	26.6	-1.0
MIN	4.5	50.0	23.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	194.1
MAX	69.8	175.7	115.0	23.0	5.0	2.5	0.0	5.2	21.0	17.3	41.7	78.7	481.4
PROM	41.6	111.8	62.3	7.5	1.4	0.4	0.0	1.1	4.7	4.4	15.6	39.1	317.3
DESV	22.0	43.1	38.5	10.2	2.2	1.0	0.0	2.2	8.0	6.4	13.7	21.0	95.1
CV	0.5	0.4	0.6	1.4	1.6	2.4	-1.0	1.9	1.7	1.5	0.9	0.5	0.3

863.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

⌘: Valores anuales años 1962 y 1963 han sido estimados.

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PRECIPITACIONES (MM)
*****
ZONA 1 HOYA 502 LAUCA SUP 2275 (KM2)
EST 8 SIXAMAR
LAT 1834 LON 6923 ALT 3350 (MTS)
*****
ANO ENE FEB MAR ABR MAY JUN JUL AG SEP OCT NOV DIC TOT
1968 41.0 41.5 35.5 0.0 0.0 0.0 0.0 0.0 0.0 0.0 6.0 -1.0 -1.0
*****

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864.

PRECIPITACIONES (MM)

ZCNA 1 HCYA 507 CCSCA CYAHUE SLP 572 (KM2)
 EST 1 CYAHUE FRCP 0.0 TIPC PV
 LAT 2113 LON 6816 ALT 3696 (MTS)

*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
ANC	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT	*****	*****	*****
1913	16.5	17.4	5.5	C.C	0.0	0.0	0.0	3.0	0.0	0.0	24.0	0.0	66.4	*****	*****	*****
1914	29.5	15.5	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	-1.0	*****	*****	*****
1915	8.0	33.0	2.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	-1.0	*****	*****	*****
1916	47.0	58.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	110.5	*****	*****	*****
1917	31.0	6.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	-1.0	*****	*****	*****
1944	24.0	156.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	250.0	*****	*****	*****
1945	30.0	10.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	40.0	*****	*****	*****
1949	0.0	0.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	21.0	*****	*****	*****
1950	4.0	20.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	91.0	*****	*****	*****
1951	0.0	26.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	36.0	*****	*****	*****
1952	1.0	25.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	46.0	*****	*****	*****
1953	0.0	104.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	110.0	*****	*****	*****
1954	12.0	113.0	2.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	170.0	*****	*****	*****
1955	41.0	70.0	8.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	211.0	*****	*****	*****
1956	0.0	0.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	-1.0	*****	*****	*****
1957	17.0	11.0	14.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	63.0	*****	*****	*****
1958	24.0	19.0	3.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	75.0	*****	*****	*****
1959	0.0	20.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	60.5	*****	*****	*****
1960	4.0	1.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	42.0	*****	*****	*****
1961	34.0	24.0	11.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	111.0	*****	*****	*****
1962	12.0	0.0	22.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	-1.0	*****	*****	*****
1963	54.0	5.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	124.0	*****	*****	*****
1964	20.0	7.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	90.0	*****	*****	*****
1965	57.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	134.1	*****	*****	*****
1966	0.0	0.0	2.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	6.0	*****	*****	*****
1967	14.0	16.0	4.0	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	42.0	*****	*****	*****
1968	-1.0	66.4	71.4	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	C.C	-1.0	*****	*****	*****
*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****	*****
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.1	*****	*****	*****
MAX	94.0	156.0	88.0	55.8	12.0	0.8	0.0	3.0	72.0	0.4	24.0	59.0	250.0	*****	*****	*****
FRCP	23.2	33.5	10.5	0.4	2.0	0.0	0.0	0.2	3.5	0.0	2.8	9.5	90.5	*****	*****	*****
DESV	22.6	39.8	21.7	1.0	3.5	0.0	-1.0	3.5	14.7	0.1	6.7	16.7	62.1	*****	*****	*****
CV	1.0	1.1	2.1	3.7	3.1	5.0	-1.0	3.5	4.2	4.9	2.4	1.8	0.7	*****	*****	*****

865.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCORRIDOS

PRECIPITACIONES (MM)

ZONA 1 HOYA 602 CHUNGARA SUP 0293 (KM2)

EST 1 CHUNGARA

LAT 1815 LON 6910 ALT 4518 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1962	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	69.0	-1.0
1963	102.0	152.5	96.5	20.0	10.5	7.0	2.0	0.0	8.0	5.5	6.0	74.0	484.0
1964	54.0	102.0	80.5	10.5	12.0	0.0	0.0	8.0	1.0	0.0	9.5	71.5	349.0
1965	48.5	46.5	15.5	15.5	0.0	0.0	0.0	4.0	16.5	0.0	3.0	38.5	188.0
1966	3.0	55.5	20.0	0.5	7.0	0.0	0.0	0.0	0.0	4.5	23.0	49.5	163.0
1967	8.0	93.0	98.0	19.5	0.0	0.0	0.0	0.0	6.8	0.0	0.0	54.2	279.5
1968	91.7	166.7	61.5	7.0	2.3	0.2	0.0	0.0	0.0	22.4	39.5	35.3	426.6
MIN	3.0	46.5	15.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.3	163.0
MAX	102.0	166.7	98.0	20.0	12.0	7.0	2.0	8.0	16.5	22.4	39.5	74.0	484.0
PROM	51.2	102.7	62.0	12.2	5.3	1.2	0.3	1.7	4.6	4.6	11.6	56.0	315.0
DESV	41.0	49.1	36.8	7.6	5.3	2.8	0.8	3.1	6.3	8.2	14.6	15.9	128.6
CV	0.8	0.5	0.6	0.6	1.0	2.4	2.6	1.8	1.4	1.8	1.3	0.3	0.4

866.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 1 HCYA 604 PAMPA DEL TAMARUGAL SLP 16023 (KM2)

EST 1 CHUSMISA

LAT 1941 LLN 6912 ALT 2520 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AGO	SEPT	OCT	NOV	DIC	TOT
1929	12.2	9.6	24.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	51.0
1930	100.3	25.2	7.3	0.0	4.9	0.0	0.0	52.9	3.8	28.5	0.0	0.0	222.9
1931	105.3	24.5	145.7	1.0	2.6	0.0	0.0	0.0	0.0	0.0	0.0	14.1	294.0
1932	81.1	40.2	13.2	0.0	0.0	0.0	4.5	0.0	0.0	1.2	0.0	0.0	160.2
1933	0.0	54.2	42.4	0.0	0.0	0.0	6.3	6.5	0.0	0.0	0.0	0.3	140.6
1934	64.9	31.8	42.5	0.0	0.0	0.0	6.3	6.5	0.0	0.0	0.0	1.5	153.9
1935	40.5	44.8	56.5	0.0	0.0	0.0	54.2	9.6	0.0	0.0	0.0	12.6	218.2
1936	71.8	28.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.8	117.5
1964	0.0	3.0	2.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	0.0	3.0	13.0
1965	25.5	6.1	6.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	0.0	0.0	-1.0
1966	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.1	-1.0	-1.0
1967	-1.0	-1.0	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	0.0	-1.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.0
MAX	105.3	54.3	145.7	1.0	4.9	0.0	54.2	52.9	3.8	28.5	0.0	14.1	294.0
PRECN	46.5	30.8	28.5	0.1	0.0	0.0	15.4	15.0	0.4	22.5	0.0	3.0	152.4
DESV	40.4	28.3	41.7	0.0	1.5	0.0	15.0	15.0	1.1	22.2	0.0	5.2	87.0
CV	0.9	0.9	1.5	0.0	2.5	-1.0	2.5	2.0	2.7	3.2	3.3	1.3	0.6

867.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCENDIENTES

PRECIPITACIONES (MM)

 ZONA 1 HOYA 604 PAMPA DEL TAMARUGAL SUP 16023 (KM2)
 EST 2 SIBAYA
 LAT 1948 LON 6913 ALT 2680 (MTS)

 ANO ENE FEB MAR ABR MAY JUN JUL AG SEP OCT NOV DIC TOT

 1929 11.0 3.0 3.0 0.0 0.0 8.0 8.0 2.0 0.0 0.0 0.0 4.0 39.0
 1930 46.0 12.0 0.0 0.0 2.0 0.0 0.0 0.0 34.0 0.0 17.0 0.0 111.0
 1931 51.0 6.0 3.4 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 3.0 63.4
 1932 68.0 70.0 4.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 142.0

868.

PRECIPITACIONES (MM)

ZONA 1 HOYA 604 PAMPA DEL TAMARUGAL SUP 16023 (KM2)
 EST 3 POROMA
 LAT 1953 LON 6913 ALT 2880 (MTS)

869.

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1929	14.9	3.9	4.9	0.0	0.0	2.5	1.8	0.0	0.0	0.0	0.0	5.0	33.0
1930	61.0	14.9	6.5	0.0	0.1	0.0	0.0	14.8	2.8	4.0	0.0	0.0	104.1
1931	62.6	1.6	59.7	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.0	126.0
1932	39.2	33.4	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	75.7
1933	0.0	60.3	42.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	102.6
1934	50.0	20.8	25.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	95.8
1935	39.0	125.0	-1.0	0.0	0.0	0.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
MIN	0.0	1.6	3.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0
MAX	62.6	125.0	59.7	0.0	0.1	2.5	1.8	14.8	2.8	4.0	0.0	5.0	126.0
PROM	38.1	37.1	23.6	0.0	0.0	0.4	0.3	2.5	0.5	0.7	0.0	1.2	89.5
DESV	23.3	43.6	23.3	0.0	0.0	0.9	0.7	6.0	1.1	1.6	0.0	2.0	32.1
CV	0.6	1.2	1.0	-1.0	1.7	2.6	2.4	2.4	2.4	2.4	-1.0	1.7	0.4

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

 ZONA 1 HOYA 604 PAMPA DEL TAMARUGAL SUP 16023 (KM2)
 EST 4 HUARA
 LAT 1959 LON 6948 ALT 1103 (MTS)

 ANO ENE FEB MAR ABR MAY JUN JUL AG SEP OCT NOV DIC TOT

 1965 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 9.5 0.0 0.0 0.0 9.5
 1967 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 20.0 20.0

870.

PRECIPITACIONES (MM)

ZONA 1 HOYA 604 PAMPA DEL TAMARUGAL SUP 16023 (KM2) 871.

EST 5 MAMINA RETEN

LAT 2005 LON 6914 ALT 2730 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1961	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	0.0	0.0	56.0	0.0	0.0	0.5	-1.0
1962	0.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
1963	24.0	9.0	0.0	0.0	0.0	0.0	0.2	0.0	20.0	0.0	0.0	0.0	53.2
1964	5.0	5.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	11.0
1965	7.0	4.0	1.5	-1.0	-1.0	-1.0	-1.0	4.5	27.5	0.0	0.0	0.0	-1.0
1967	2.5	23.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	26.0
MIN	0.5	4.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.5
MAX	24.0	23.0	1.5	0.0	0.0	0.0	0.2	4.5	56.0	0.0	0.0	0.5	53.2
PROM	7.8	9.0	0.3	0.0	0.0	0.0	0.0	0.9	17.3	0.0	0.0	0.1	23.7
DESV	9.4	8.1	0.7	0.0	0.0	0.0	0.1	1.8	22.4	0.0	0.0	0.2	21.6
CV	1.2	0.9	2.2	-1.0	-1.0	-1.0	2.2	2.0	1.3	-1.0	-1.0	2.4	0.9

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

 ZONA 1 HOYA 604 PAMPA DEL TAMARUGAL SUP 16023 (KM2)
 EST 6 CANCHONES
 LAT 2025 LON 6935 ALT 960 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1944	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
1945	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.0	0.0	0.4
1947	1.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.6

872.

PRECIPITACIONES (MM)

 ZONA 1 HOYA 604 PAMPA DEL TAMARUGAL SUP 16023 (KM2)
 EST 8 PICA
 LAT 2030 LON 6921 ALT 1250 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1963	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	-1.0
1964	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
1965	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	14.8	0.0	0.0	-1.0	-1.0
1967	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	-1.0
1968	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
MAX	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3	14.8	0.0	0.0	0.0	0.3
PROM	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	3.4	0.0	0.0	0.0	0.1
DESV	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	6.5	0.0	0.0	0.0	0.2
CV	-1.0	1.4	-1.0	-1.0	-1.0	-1.0	-1.0	2.2	1.9	-1.0	-1.0	-1.0	1.4

873.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 1 HOYA 605 LAGUNA DEL HUASCO SUP 1372 (KM2)

EST 1 COYACAGUA

LAT 2002 LON 6850 ALT 4200 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1961	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	2.7	71.0	-1.0
1962	23.5	13.0	1.5	19.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0
1963	41.0	48.0	10.0	0.0	0.0	2.0	0.0	0.0	1.5	0.0	0.0	6.5	109.0
1964	17.0	42.0	10.5	5.0	0.0	0.0	0.0	1.5	0.0	0.0	0.0	7.0	83.0
1965	23.5	5.0	9.5	0.0	0.0	0.0	0.0	0.0	32.5	0.0	0.0	16.0	86.5
1966	-1.0	-1.0	9.5	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.5	4.0	-1.0
1967	16.5	90.7	34.5	1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0	-1.0
MIN	16.5	5.0	1.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	57.0
MAX	41.0	90.7	34.5	19.0	0.5	2.0	0.0	1.5	32.5	0.0	2.7	71.0	109.0
PROM	24.3	39.7	12.6	4.2	0.1	0.5	0.0	0.3	6.8	0.0	0.5	17.4	83.9
DESV	9.9	33.9	11.3	7.5	0.2	0.9	0.0	0.7	14.4	0.0	1.1	26.8	21.3
CV	0.4	0.9	0.9	1.8	2.2	1.7	-1.0	2.2	2.1	-1.0	2.0	1.5	0.3

874.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 1 HOYA 608 SALAR ASCOTAN SUP 2430 (KM2)

EST 1 ASCOTAN RETEN

LAT 2140 LON 6816 ALT 3966 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1963	3.0	69.0	51.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	131.0
1964	9.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0	12.0
1965	26.6	-1.0	99.0	0.0	-1.0	-1.0	-1.0	21.0	15.5	0.0	0.0	-1.0	-1.0
1966	0.0	0.0	0.0	0.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
1967	6.3	54.0	4.2	11.0	0.4	8.1	0.0	0.3	0.0	0.0	2.8	1.5	92.0
1968	23.6	24.5	4.0	-1.0	4.4	0.0	0.0	0.0	-1.0	0.0	13.0	0.0	-1.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.0
MAX	26.6	69.0	99.0	11.0	4.4	8.1	0.0	21.0	15.5	0.0	13.0	8.0	131.0
PROM	11.4	29.5	26.9	2.2	1.4	1.6	0.0	3.5	3.1	0.0	2.6	2.4	59.3
DESV	11.1	31.3	40.3	4.9	1.9	3.6	0.0	8.5	6.9	0.0	5.2	3.8	62.5
CV	1.0	1.1	1.5	2.2	1.4	2.2	-1.0	2.4	2.2	-1.0	2.0	1.6	1.1

875.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS

PRECIPITACIONES (MM)

ZONA 2 HOYA 612 SN PEDRO DE ATAC SUP 15 9 (KM2)

EST 1 SN PEDRO DE ATACAMA

LAT 2256 LON 6813 ALT 2436 (MTS)

ANO	ENE	FEB	MAR	ABR	MAY	JUN	JUL	AG	SEP	OCT	NOV	DIC	TOT
1964	-1.0	-1.0	-1.0	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-1.0
1965	-1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	9.5	0.0	0.0	0.0	-1.0
1966	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0	0.0	0.0	5.0
1967	0.0	15.0	0.0	5.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
1968	15.0	0.0	6.0	0.0	14.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.0
MIN	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.0
MAX	15.0	15.0	6.0	5.0	14.0	0.0	0.0	0.5	9.5	5.0	0.0	0.0	35.0
PROM	5.0	3.8	1.5	1.3	2.8	0.0	0.0	0.1	1.9	1.0	0.0	0.0	20.0
DESV	8.7	7.5	3.0	2.5	6.3	0.0	0.0	0.2	4.2	2.2	0.0	0.0	15.0
CV	1.7	2.0	2.0	2.0	2.2	-1.0	-1.0	2.2	2.2	2.2	-1.0	-1.0	0.8

876.

NOTA: VALORES NEGATIVOS INDICAN DATOS DESCONOCIDOS