## Herbert A. Luft Sunspot Observer



Leif Svalgaard Stanford University May 22, 2013

### Digitizing Luft's Notebooks

#### Herb Luft's notebooks: new science from the AAVSO Archives

Posted by Matthew Templeton on May 10, 2013 - 12:25pm

The AAVSO Solar section and AAVSO headquarters are hosting a special guest this week and next, Leif Svalgaard (at center in this photo) of Stanford University/Solar Dynamics Observatory. Leif is here to digitize sunspot records from the original notebooks of AAVSO member Herbert A. Luft (1908-1988), housed in the Thomas R. and Anna Fay Williams Archives.



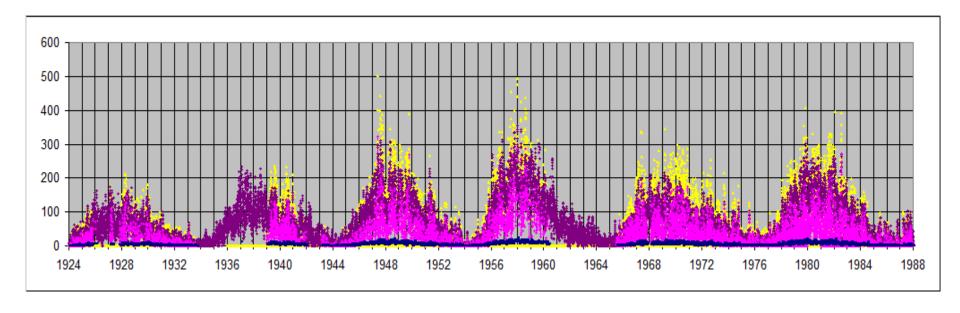
Michael Saladyga (L), Leif Svalgaard (C), Matthew Templeton (R)

A year ago, our Solar section leader Rodney Howe started telling us about an international workshop series that both he and fellow solar observer Susan Oatney were attending. The SSN (sunspot number) workshop, established by Ed Cliver (Air Force Research Laboratory), Frédéric Clette (Royal Obs. of Belgium), and Leif, was designed to reconcile the numerous historical records of sunspot counts. As it turns out, records exist for sunspot counts going back to the 17th century at least, and those records can in principle provide us with a record of solar activity for several centuries. However, some parts of that record were likely corrupted over time by changes in observing procedure and the use of different averaging and weighting factors. (You can read former Solar Division Chair Carl Feehrer's article "Dances With Wolfs: A Short History of Sunspot Indices" on this same topic.) This is problematic, since it is difficult to understand long-term changes in the Sun without having a historical record that is self-consistent throughout. The scientific questions surrounding the sunspot record extend well beyond the Sun itself.

#### Luft observed from 1923 to 1987

Herbert Luft was born in 1908 in Breslau, Germany and died 1988 in New York, USA

As a teenager he joined various Amateur Associations and was mentored by the slightly older Wolfgang Gleissberg who suggested Luft concentrate on Sunspots.



The nearly 12,000 pages yielded 10,434 usable observations [when image quality was good enough].

Blue = groups, Pinks = spots, Yellow = SSN, Purple = SIDC Official SSN.

### In 1938 Luft was in Buchenwald





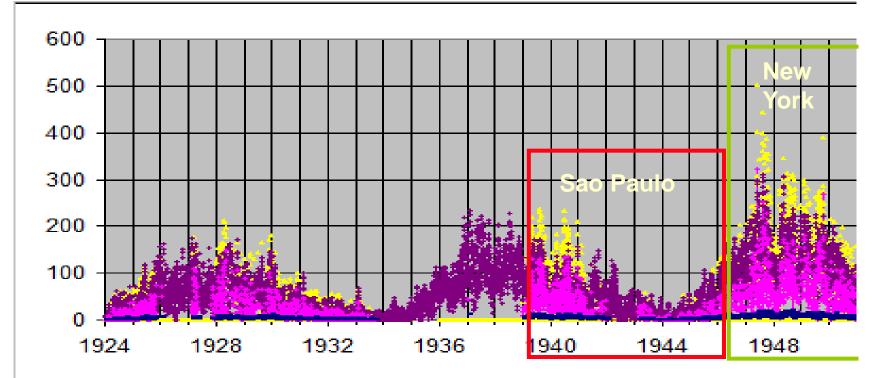




# Managed to get out in 1939 and flee to Brazil [where he had family]



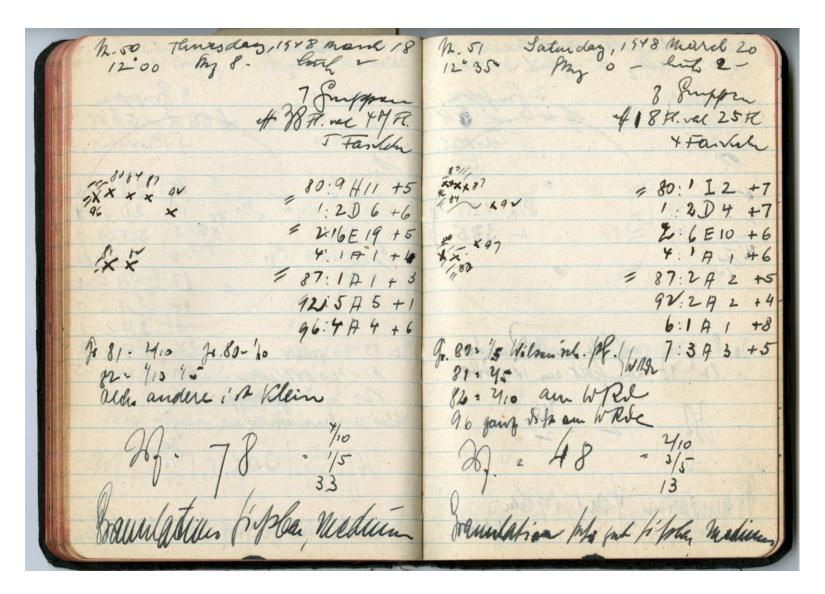
Monte Pascoal 2400-passenger steamer



### Pages from May 1940 [São Paulo]

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### Pages from March 1948 [New York]



### The Data File

			1948.183	7	3	1948
93	23	7	1948.186	8	3	1948
100	30	7	1948.189	9	3	1948
148	58	9	1948.191	10	3	1948
			1948.194	11	3	1948
142	52	9	1948.197	12	3	1948
132	62	7	1948.2	13	3	1948
166	66	10	1948.202	14	3	1948
			1948.205	15	3	1948
120	50	7	1948.208	16	3	1948
146	56	9	1948.21	17	3	1948
108	38	7	1948.213	18	3	1948
			1948.216	19	3	1948
98	18	8	1948.219	20	3	1948
24	4	2	1948.221	21	3	1948
22	2	2	1948.224	22	3	1948
			1948.227	23	3	1948
			1948.23	24	3	1948
79	19	6	1948.232	25	3	1948
105	35	7	1948.235	26	3	1948
			1948.238	27	3	1948
	İ		1948.241	28	3	1948
154	64	9	1948.243	29	3	1948

Groups Spots SSN

# Now we can begin to do Science with Luft's data [so more to come]

