

erwise excellent article has two errors.

Something must have gotten lost in translation to cause Fleming to claim that "Rossby pursued numerical weather prediction in Sweden in an era in which there was no Swedish word for digital computer." With applied mathematician Germund Dahlquist, Rossby developed a weather model for the Binär Elektronisk Sekvens Kalkylator (BESK; Binary Electronic Sequence Calculator). Designed and built in Sweden, BESK was the world's fastest computer when it became operational in 1953. From September 1954, BESK weather simulations enabled routine 24-hour national forecasts.

The funding agency for the BESK project, Matematikmaskinnämnden (the Swedish Board for Computing Machinery), has a Swedish word for digital computer, *matematikmaskin* (literally, mathematics machine) in its name! Other contemporary Swedish terms for computer were *siffermaskin* (numbers machine), *datamaskin* (data machine), *kalkylator* (calculator), and the more fanciful *elektronhjärna* (electron brain), favored by the media. *Dator*, the now predominant term, was not introduced until 1968.

Also, the correct abbreviation for Sveriges Meteorologiska och Hydrologiska Institut (Swedish Meteorological and Hydrological Institute) is SMHI.

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► **Fleming replies:** I thank Johan Carlsson for his comments. My statement about "an era in which there was no Swedish word for digital computer" was based on a 1946 report by Stig Ekelöf, a technician at Chalmers Institute of Technology.¹ I could have said there was no widely used term in *any* language for the new machines.

According to the digital archives of Sweden's two leading newspapers, *Dagens Nyheter* and *Svenska Dagbladet*, the term *elektronhjärna* appeared as early as 1946. *Matematikmaskin* became established in 1947. *Siffermaskin* was mentioned in 1907 and reappeared in 1948. *Datamaskin* was in frequent use by 1956.

By the early 1950s, BESK (Binary Electronic Sequence Calculator) was the best machine of its kind in the world. Sweden

used it to issue the world's first real-time operational numerical forecast on 23–24 March 1953; it beat the actual weather events by some 90 minutes. In 1955 Joanne Malkus and Georg Witt used BESK to generate the first digital cloud models.

When Carl-Gustaf Rossby entered meteorological service in 1922, the Swedish Meteorological and Hydrological Institute was called Statens Meteorologisk-Hydrografiska Anstalt. The name change occurred in 1945. The confusion of the abbreviations SMHA and SMHI on page 53 of my article is an editorial glitch.

Reference

1. A. Persson, *Meteorol. Appl.* **12**, 135 (2005), p. 143.

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Correction

September 2017, page 31—The amount of annual US hydrogen production is around 11 million tons, not 10 tons as stated. PT



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