

Richard Upham Marsters (1787–1845), repaired chronometers on Sackville St. (near the present Delta Barrington), and bought a Troughton & Simms transit telescope in 1826 for a "temporary observatory" to rate chronometers. One of Marsters' marine chronometers survives, and shows fine workmanship. It was said in 1832 that Marsters was the first successful North American maker of chronometers (W.C. Bond is usually held to have preceded him). Both Marsters' chronometer and his transit are extant, the former at the Maritime Museum of the Atlantic. Few of Marsters' commercial rivals and successors were as accomplished, although several others did operate Halifax observatories.

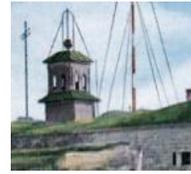
Much effort went to improving geographical positions via astronomy in the earlier 19th century. The Halifax Dockyard Observatory (1828–1859?) was intended as a reliable local meridian for marine survey work, and rating chronometers.

Southeast of Admiralty House



overlooking the harbour, it had a Jones 9-inch reflecting circle, and Parkinson & Frodsham, and French chronometers—and the King's College (Windsor) Ramsden transit telescope on loan. In 1851, the northern station for the telegraphic determination of longitude between Halifax and the Harvard College Observatory was

near the Dockyard Observatory. The city was late acquiring a time ball, which operated from the Citadel (1904–ca. 1959). The noon-time gun both preceded the time ball, and has outlasted it (ca. 1749 to the present).



The seeds of a modern university program in astronomy began (ca. 1957) with Fr. M.W. Burke-Gaffney (1896–1979) at Saint Mary's University. The department (ca. 1974–) is the only significant astrophysical research and teaching institution in the city. Fr. Burke-Gaffney co-founded the Nova Scotia Astronomical Society (1951), and led its transformation into the Halifax Centre of the RASC (1955–). When the Nova Scotia Museum of Natural Science purchased a Spitz A1 planetarium (ca. 1955), Halifax RASC members were lecturers, a role they still fulfill at its present home in the Dalhousie University Department of Physics & Atmospheric Science.



A striking armillary sundial (1997) is at the Medjuck Building (5410 Spring Garden Road), and in the

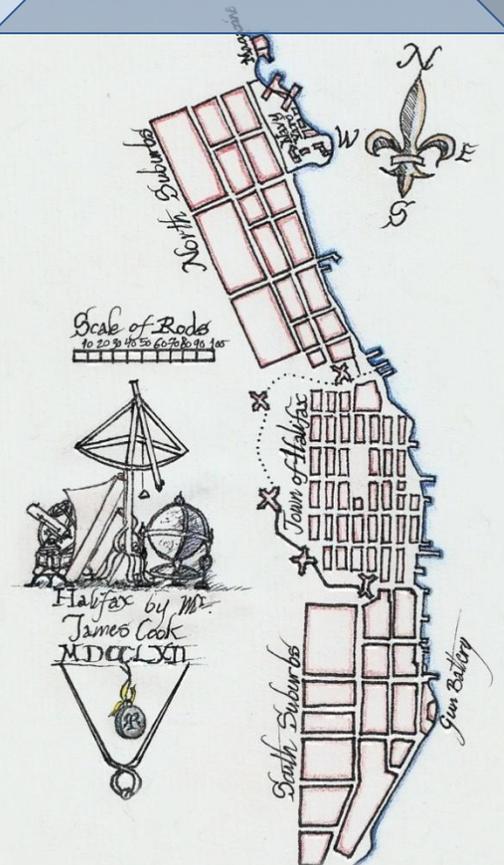
Public Gardens a horizontal dial (1976) is on the main path east of Ceres, and west of the curved bridge.



Brochure prepared by the RASC History Committee (rasc.ca/archives) 2015 June 21. Images ©SPECVLA-ASTRONOMICA-MINIMA.



Halifax astronomical history & heritage



halifax.rasc.ca
astronomynovascotia.ca



The First Nations inhabitants of the Maritimes can trace their presence in Mi'kma'ki across the millennia. They observed celestial bodies for daily time-

keeping, calendrical reckoning, and navigation, tied to ritual and economic purposes. Mi'kmaq cosmology was transmitted through many-layered narratives characterized by flexible symbols. Over four centuries of the colonial experience has taken its toll on that traditional knowledge, but efforts at recovery are ongoing. First Nations' cultures were likely never static, and the present living tradition is free to make use of traditional teachings and the results of modern observational cosmology.



Halifax was founded in 1749, as a British garrison town to provide an economic and military counterpoise to the French settlement of Louisbourg. The skills of

practical astronomy were used in laying out the town. One of the surveyors, Capt. Charles Morris (1711–1781), became Chief Surveyor of Nova Scotia (1749–1781), and his office is the oldest surviving (1764)



commercial site for practical astronomy in the country.

In 1758–1762 sailing master James Cook

learned practical astronomy in the harbour & the naval yard (and at Louisbourg) from Capt. John Simcoe and Lt. Samuel Holland, to such good effect that he led the Royal Society's expedition to Tahiti to observe the 1769 transit of Venus. Private schools were offering courses in astronomy a mere three years after the founding of the city. At the south end of Granville Street, at the "Sign of the Hand & Pen", Leigh & Wragg taught "all Parts of the Mathematics", while Henry Meriton "AT the Academy in Grafton-Street" offered speedy instruction in "Trigonometry both plain and spherical...Surveying, Navigation, Astronomy, Dialling, and the Use of Globes".

Astronomical publishing was established by at least the late 1760s with "THE Nova-Scotia Calendar, Or an ALMANACK" pseudonymously authored variously by "A. Lilius" or

Day	Month	Year	Time	Notes
1	Jan	1764	10:00	Very cold.
2	Jan	1764	11:00	with snow or rain.
3	Jan	1764	12:00	cb. E. Sun. 27. 28. 29. 30.
4	Jan	1764	13:00	cb. E. 28.
5	Jan	1764	14:00	Sunday next Christmas.
6	Jan	1764	15:00	High winds again.
7	Jan	1764	16:00	"more and rain."
8	Jan	1764	17:00	Moderate Weather.
9	Jan	1764	18:00	cb. E. Sun. 6 f. ☉ Apog.
10	Jan	1764	19:00	P. Sun. 2h.
11	Jan	1764	20:00	1st Sun. p. B. in 22h.
12	Jan	1764	21:00	Great equinox of New Year.
13	Jan	1764	22:00	three days.
14	Jan	1764	23:00	Twilight ends at 10h.
15	Jan	1764	24:00	Mid. Sun. or rain.
16	Jan	1764	25:00	2. 2. part E. p. p. p. p.
17	Jan	1764	26:00	cb. E. Sun. 42h.
18	Jan	1764	27:00	3. 3. part E. p. p. p. p.
19	Jan	1764	28:00	4. 4. part E. p. p. p. p.
20	Jan	1764	29:00	5. 5. part E. p. p. p. p.
21	Jan	1764	30:00	6. 6. part E. p. p. p. p.
22	Jan	1764	31:00	7. 7. part E. p. p. p. p.
23	Jan	1764	32:00	8. 8. part E. p. p. p. p.

"Metonicus", and "printed and SOLD by Anthony Henry and Mr. Fletcher's on the Parade", or later at the corner of Sackville and Grafton. The almanac is an ancestor in genre of The Royal Astronomical Society of Canada's *Observer's Handbook*.



Time in the city was given a more formal monument when the Town Clock was erected on Citadel Hill (1801–1803). The works of this turret clock are by

Vulliamy of London, the same firm which produced the regulator for King George III's private observatory at Kew. It was commissioned by Edward Augustus, Duke of Kent and Strathearn, fourth son of the astronomer King of England (and patron of William Herschel). This public timepiece represented "official" local time, its going could symbolise the state of the responsible public authority, and its presence was a tangible sign of London's worldwide dominance of the scientific instrument trade. The clock was a practical convenience for Halifax, and, for those so inclined, could offer a model of aspects of the mechanistic universe itself.

Colonial ports such as Halifax had need of technicians capable of servicing the instruments of practical astronomy, particularly precision timekeepers.