



episode 3 (2018 March) *Early Star Parties—celestial sights for free*

Heather: Hello everyone! Welcome to the third episode of the RASC 150 History Podcast, in which we rustle some old pages, turn over antiquarian books to see what's underneath, and cast light on walls through vintage lantern slides. My name is Heather Laird, I am a Director of The Royal Astronomical Society of Canada, and my co-host is the RASC Archivist, Randall Rosenfeld. Say hello, Randall!

Randall: [some mumbled greeting, or other]

Heather: In this podcast, we look at a social practice much beloved of contemporary amateur astronomy, the star party, and inquire as to its origins, and development. For many amateur groups, the star party is a major tool of education and public outreach, and the prime occasion for direct engagement with the public.

Randall: Given the place of star parties within the constellation of activities indulged in by modern clubable amateur astronomers, it is surprising how little attention has been paid to the star party as a phenomenon. The history of star parties is interesting, and not what one might think. Before we look into the past of star parties, we should describe what a modern star party is.

Heather: A star party can be simply defined as "*an occasion for mainly recreational astronomical observing, involving more than one person*".

Randall: Or, if you prefer, a star party may be defined as "*the peculiar practice of congregating under the stars with intent to waylay passersby with celestial enticements. It frequently involves lurking near telescopes*".

Heather: I hope you like our definitions, because we didn't get any help from either the nicely authoritative *Oxford English Dictionary*, or standard dictionaries of astronomy such as the nicely compendious *Collins Dictionary of Astronomy*, or the nicely blue-covered *Oxford Dictionary of Astronomy*, for when we last sent Randall to look he didn't find entries for the term in any of those lexical works, or in publications of a similar nature.

Randall: The modern star party comes in varied, & diverse shapes, and sizes. There are urban, semi-urban, and remote star parties; weekly, monthly, or annual star parties; closed or open invitation star parties; star parties for the public, or star parties geared for amateur observers and astrophotographers, or for mainly visual observers, or for astrophotographers; special celestial-event star parties; star parties which are purely recreational or educational, or star parties devoted to real data acquisition or offering training in the same; and star parties hosted by charitable associations, institutions, or commercial interests.

Heather: It is probably fair to say that the majority of amateur astronomers have taken part in a star party of some sort, if they belong to an organized group with a self-imposed mission to proselytize astronomy. Over half of the Centres of the RASC hold significant multi-day annual star parties in dark sites, with the New Brunswick Centre outpacing the rest in frequency, hosting five star parties each year in four different locations. The Centres of the RASC endeavour to hold their significant star parties in areas of striking natural beauty, and some sites combine geographical sublimity with eminence in the landscape of Canadian astronomical history and heritage. The star party which comes immediately to mind for those characteristics is the Mt. Kobau Star Party, hosted by the Okanagan Centre of the RASC. It takes place on or near the site of what was to be the largest aperture telescope on Canadian territory, the Queen Elizabeth II telescope, an ill-fated centennial project which eventually resulted in the Canada-France-Hawaii Telescope at Maunakea. But even a semi-urban star party held in the shadow of a major astronomical installation can rely on the magic of place for situational awe, particularly in the presence of an important dome.

Randall: Also notable for location, as well as alliteration, is the Saskatchewan Summer Star Party at Cypress Hills Interprovincial Park, hosted by the Saskatoon and Regina RASC Centres. There are numerous other RASC star parties which could be mentioned, but we would be remiss if we didn't acknowledge that there are good star parties held in Canada which are hosted by astronomy groups which are *not* affiliated with the RASC. In fact, the most significant Canadian star party, listed among the top star parties in the world, is *Starfest*, hosted by the North York Astronomical Association, which is definitely *not* a RASC Centre, and no poorer for the fact. And, of course, there are star parties held worldwide, wherever amateur astronomers have organized themselves.

Heather: Star-party activities are various, and typically include observing, workshops, lectures, observing, demonstrations, classes, observing, presentations by vendors (where allowed), and observing. The most important activity is observing, indeed, that activity provides the commonality conceptually associating star parties everywhere. The observing is particularly valued when the site of a star party is inspiringly remote from the scourge of light pollution. Colouring all activities at star parties is a tincture of education, formal or informal, heavy or light, conveyed vertically from expert to lay participants, or horizontally in peer to peer exchanges, with the relationships fluid depending on topic and occasion. Also not to be overlooked are the social dimensions of star parties; being in the presence of people who enjoy doing astronomy can be a significant motivation for taking part.

Randall: So much for the present, now for the historical turn. In the remaining portion of the podcast we'll address three questions: 1) how old are star parties?; 2) how old is the term "star party" in an astronomical sense?; and 3), when did the RASC begin to hold star parties? While you might think that asking the first two questions, "when did the practice start?", and "how old is the term?", is asking the same question twice, neither the questions nor the answers are the same. And both can be difficult to answer.

To ask "how old is the practice?", is to ask an open-ended question without a definite answer—the answer is wholly dependent on the available sources, and how one chooses to define "star party".

A few iconographical sources can help illustrate this point—for this we'll ignore the incongruity of discussing images on an aural medium. From the 16th, 17th, and 18th centuries there survive copper-plate engravings of people in urban and semi-urban settings, who have congregated inside or outside town walls to watch apparitions of some great naked-eye comet. These are comets which are bright enough and appear large enough to impose themselves on onlookers. Have the viewers gathered through prior planning, or have they gathered spontaneously where the comet can be seen, drawn to the spectacle the way they would be to a display of fireworks, a royal entry, or some unexplained prodigy? Are they viewing for recreation, or data taking, or some mix of the two? Are they interpreting the phenomenon as a celestial event with aesthetic qualities, which has

a physical explanation, and a mathematical theory to account for its apparition, or are they viewing it as a prodigy, sent as a warning, and requiring interpretation to determine its import for their lives, or are all of these modes of thought running through their minds in the presence of the comet? Which of these conditions would qualify the scene depicted as a "star party"? Perhaps we should exclude none of these depictions from being star parties, even in cases where the observers might have had attitudes to celestial phenomena farthest removed from our own. A more interesting point to consider is this—just because we are satisfied that a gathering of observers in the past meets our modern criteria to be considered a star party, does not mean that those observers of the past would have agreed with our characterization of their activity, or have recognized how we label their activity, or even comprehended our categories.

Heather: None of those 16th- to 18th-century copper-plate engravings which could be considered images of star parties of some sort are Canadian, although there is no reason observers here could not have been similarly depicted. We do have Canadian examples from the end of that period in verbal descriptions. The Harvard College 1761 transit of Venus expedition chose a station outside of St. John's, Newfoundland. The leader of the expedition, the Rev'd John Winthrop, reported that: [quote] "*Thus prepared, we waited for the critical hour, which proved favorable to our wishes. The morning of the 6th of June was serene and calm. The Sun rose behind a cloud that lay along the horizon, but soon got above it; and at 4h 18m we had the high satisfaction of seeing that most agreeable Sight, VENUS ON THE SUN, and of shewing it in our telescopes to the Gentlemen of the place, who had assembled very early on the hill to behold so curious a spectacle. ... In memory of so rare an observation, the Gentlemen present agreed to give the hill, where our observatory was situated, the name Venus's Hill*" [close quote]. This 18th-century description has an air of familiarity for amateurs who took part in the modern transit of Venus star parties in 2004, and 2012.

So, one answer to our first question "*how old are star parties?*", is that star parties are found whenever two, or three, or more are gathered together in the desire to view celestial phenomena in the hope of gaining some knowledge of the universe, in which case they are very old indeed.

Randall: It is a different matter when we come to ask how old is the term "star party" in an astronomical sense? It doesn't appear to be an old usage at all. The earliest unequivocal instance known to us was found by a colleague of ours, Clark Muir, after an extensive search of the literature. It reads: [quote] "*Miss Helen Whitaker, instructor in astronomy at Washburn College, will give a "star party" tonight at Washburn Observatory. With the aid of the big telescope she will exhibit an assortment of stars to students and the public at 7:30 o'clock. The public is invited to attend. The telescope at the Washburn observatory [sic.] magnifies 750 diameters, and has been in use there since 1902*" [close quote]. The date of this citation is 1922, and it occurs in a local newspaper in Kansas. There may be older examples, but we'd be surprised if any were older by more than five years. What's interesting is how rare the term appears to be. In 1939 and 1940, *The Sky*, and *Popular Astronomy*, report on urban star parties held in parks in downtown Cleveland, and in Evanston Illinois. There are signs in the reporting which indicate that the organizers thought they were engaged in a novel activity: the term "star party" appears in quotation marks, signalling that the usage is unusual.

This isn't the whole story, however. A related term, "*star-gazing party*", is demonstratively older. It appears that the modern term "*star party*" is in fact a contraction of the older established term "*star-gazing party*". And the earliest citation we've found is in an obituary for the American telescope maker John Clacey (1857-1931), describing an earlier period. It states: [quote] "*At this time, in the early [18]80's, amateur astronomy was on a high wave of popularity. Wealthy people in the vicinity of Boston were buying small telescopes and star-gazing parties were the latest fad*" [close quote].

Heather: Our favourite use of the term occurs in what is almost certainly an apocryphal story from 1887 in *The Indianapolis Journal* : [quote] "*The astronomy class of Boston University arranged for a "star gazing" party, with telescope and other accessories to take place on the Common. The night selected proved rough and threatening, but the girls were all there. Not a boy put in an appearance. The weather was too cold for them[!]*" [close quote].

In answer to our second question, "*how old is the term "star party" in an astronomical sense?*", we can reply that "*star party*" dates from about the 1920s, but that it took a while for the term to catch on, and that it's a contraction of "*star-*

gazing party", which was in more general use from the 1880s. More research may push these dates back. It is also worth noting that "*star party*", and "*star-gazing party*" seem to have originated in North America; the term "*star party*" is scarce in British astronomical literature before the mid to late 1980s.

Randall: Finally, we come to our last question, "*when did the RASC begin to hold star parties?*".

At a meeting of the Society on 1890 June 3, it is reported that: [quote] "*An animated discussion arose with respect to the desirability of having, in popular parlance, "A Night with Saturn," such of the public as might be interested to be invited. Ultimately, several of the members expressed their willingness to place their telescopes at the disposal of any persons desirous of seeing Saturn and other celestial objects*". Clearly not all members at the time thought that it was a good use of the Society's resources to engage in "star-party" style education and public outreach. They may have wanted to keep the Society's group observing intrinsic—if anyone wanted to observe with the group, or use its instruments, then they ought to apply for membership. This attitude could reflect the desire to engage in serious astronomical observing, the sort that gathered data and advanced science, rather than a type of observing seen as frivolous, that is, mere stargazing.

What was the result of that "animated" discussion among the members at the meeting on 1890 June 3 as to whether they should hold what we would now recognize as a public "star party"? The account of the meeting in the manuscript minute book of the Society is much less detailed than the printed version, and offers even less detail on the tenor of the discussion, and none as to its outcome: [quote] "*A suggestion was made by the vice-president as to an open meeting which could be held in the Normal School Grounds*" [close quote]. The printed minutes for the year have nothing further to say on the matter, but in this case, the manuscript minute book is a little more informative. At the meeting of 1890 June 17, we learn that: [quote] "*The proposal to hold an open meeting in the Normal School Grounds or a more suitable place was dropped for the present*" [close quote]. It seems that, for whatever reason, the proposal for the Society to hold its first public "star party" was allowed to lapse in the year in which it was made!

Heather: Solid evidence of the Society making it possible for others to look through telescopes survives from four years later. A transit of Mercury was predicted for November 10, and: [quote] "*Arrangements had been made to send telescopes to some of the public schools of the city, that the pupils might have an opportunity to observe the phenomenon*" [close quote]. Fortunately, this initiative was not left to wither; the following year, at a Society meeting of 1895 May 28, it was recorded that: [quote] "*Miss A.A. Gray reported having spent an evening at the telescope with the pupils of Wellesley School, who were much interested in observations of Jupiter and Saturn. With the assistance of another member, she had arranged to give the senior classes of the public schools as many opportunities as possible to engage in practical telescopic work. The general interest taken and the order that prevailed during the observations had been very encouraging. Several members repeated their desire to assist Miss Gray in this work, which was directly in line with the Society's objects*" [close quote].

Randall: At a Society meeting of 1898 May 31, it appears that the next step to realising open-invitation star parties was initiated: [quote] "*The President read a brief account of an interview had with a committee of the City Council since the previous meeting and in reference to a money grant to the Society. The sum of \$100 had been voted, it having been asked for the purpose of providing opportunities for the general public to view celestial objects with the telescope*" [close quote]. This may have borne fruit, as noted at the twelfth meeting of the Society, 1899 June 27: [quote] "*...this was an open meeting held in the Toronto Observatory, at the invitation of the Director...The meeting then adjourned and a pleasant hour was spent in observation with the large telescope of the observatory, and with smaller instruments brought by members and placed on the lawn*" [close quote].

Heather: By 1900, "star parties" not too dissimilar from current practice, and attitudes of enthusiasm for such events, mark the Society's activities. At the meeting of 1900 September 5: [quote] "*A series of reports of successful out-of-door meetings for telescopic work were received... the President and other members had willingly set up telescopes for the evening on public and private lawns in various parts of the city in order that the public might be enabled to observe celestial phenomena and had themselves attended and had presided at their instruments or had given practical instruction in Constellation study. Some of*

these meetings had been held under the auspices of churches and of public and private schools, and one of them on the grounds of the Harbord Collegiate Institute at the instance of the Froebel Society; another on the grounds of the Normal School when the teachers attending the school were present, and a third on the grounds of St. Andrew's Boys' College. These meetings had been attended by large and appreciative gatherings, and the Society had been thanked for what it had done. The President added that during a holiday in Muskoka he had placed a telescope on the lawn every clear evening, and had welcomed any one who chose to use it. Sometimes as many as fifty guests and others were present. The Muskoka air was admirably adapted for observation. During August, Venus was a beautiful daylight object being easily visible to the naked-eye in bright sunshine. In the telescope she was, of course, still more attractive. To many people, ability to see a star in the daytime was a pleasing novelty" [close quote].

Randall: And there we have it. The answer to our final question, "*when did the RASC begin to hold star parties?*", is during the 1890s, and certainly by 1900. When the possibility was first raised that the RASC might hold star parties for the public, it was met with some internal opposition. We have been using star parties as a major tool of education and public outreach for at least one hundred and seventeen years. In some respects the way we do star parties, at least the urban ones, hasn't changed all that much. The public shows up, they look through telescopes, they have their moment of celestial epiphany, or not, and then they leave. The question we should now be asking is, how effective is this mode of education and public outreach? Is it as effective as it was in 1900? Can the experience be substantially improved? Should we still be doing this? And why has this conversation not yet taken place among us?

Heather: Thanks to everyone who tuned in, and we hope you enjoyed this podcast. If you have any questions, please visit www.rasc.ca/rasc-2018-podcasts for contact details.

Our next podcast is scheduled for a month from now, and is on personal records of the sky.

Our sound engineer is Chelsea Body, and our theme music is by Eric Svilpis.