

Percy Mayow Ryves (1881–1956): Observer, discoverer & BAA Section Director

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The astronomical career of Mr Percy Mayow Ryves, a BAA member from 1899 to 1956, and a Walter Goodacre medallist, is described in detail. Ryves contributed to the BAA for most of those 57 years, mainly as a variable star observer, but he also served as the Mars Section Director for 14 years. In addition, he was a popular BAA meetings speaker during the 1940s and 1950s. Yet despite all of this, and his many RAS contributions, no obituary for him was ever written. Ryves' visual discovery of a comet, from Spain, in 1931 places him in the unusual category of being a BAA comet discoverer in that barren period between the W. F. Denning/Edwin Holmes era and the prolific discovery period of George Alcock.

Early years

Percy Mayow Ryves was born on 1881 September 4, despite a number of sources listing his birth year as 1876. His father was the Revd George Thomas Ryves M. A. (1833–1897) and his mother was Georgiana Harriet Anne Courtenay (1846–1932), the daughter of the Rt Rev Reginald Courtenay and Georgiana Beresford. Percy had two brothers (Reginald Arthur and George Bernard) and three sisters (Miriam Georgiana Beresford, Evangeline Esther and Constance). During the 1890s the family lived at Upper Tean, near Cheadle, Staffs., a few miles from Stoke-on-Trent.¹

The young Percy Ryves appears to have been fascinated by astronomy and there were a number of family influences that may have steered him in this direction. For example, in 1942 he commented 'Many years ago my family was acquainted with Mr Maxwell Hall in Jamaica so that I have heard a good deal about his work. His instrument was a 4-inch (102mm) refractor, and amongst other things he was searching for an intra-Mercurial planet, the hypothetical Vulcan, the existence of which many astronomers at that time believed. This would be somewhere in the eighteen-sixties.'²

The Jamaica link can easily be verified because Ryves' maternal grandfather was the Rt Rev Reginald Courtenay (1813–1906) who was the Bishop of Kingston, Jamaica, from 1856 to 1879. Another possible family influence is suggested by the fact that Percy Ryves exhibited drawings of Jupiter by 'the late E. W. d. Ryves' in 1943.³ Assuming that 'd' was a BAA typographical error this may have been E. W. L. Ryves of Lindenville, Ramsgate who contributed astronomical items about, for example, reflectors and Jupiter's moons, to *English Mechanic* in the early 1900s.^{4,5} Percy Ryves' paternal uncle was named Edmund Warren Lewis Ryves and his cousin was another Edmund Ryves, so the former may well have been the aforementioned E. W. L. Ryves.

Towards the end of Percy Ryves' life, he occasionally referred to events he recalled during the 1890s. For example, on 1953 October 28, with a sunset transit of Mercury looming, Ryves recalled: 'I tried to observe a rather similar one a few years ago, in 1894 I think, on November 10, also a little before sunset. Unfortunately, it was so cloudy that I could not see anything at all. I hope to be more successful this time and not to have to



Figure 1. Percy Ryves briefly lived at Fenny Bentley Hall in the late 1890s, due to his grandmother's family connections. 2007 image by Victuallers, Creative Commons licence.

wait another fifty-nine years!' In fact Ryves did observe at least one other Mercury transit (on 1907 November 14) but that was not a sunset event.⁶

In addition, in 1954, with a total solar eclipse looming on June 30, he recollected: 'I am just old enough to remember the tragedy in 1896 on August 9. There was an eclipse, total in Scandinavia, very like the coming one, and this Association organized an expedition. They all went to the same place and occupied sites close together. It happened to be cloudy, and nobody in the party saw a thing; it was an absolute blackout.'⁷

From 1881 there existed a science publication (originally weekly, but monthly after 1885) called *Knowledge*, a copy of which would cost the purchaser two old pennies. *Knowledge* prided itself on being 'an illustrated magazine of science, plainly worded – exactly described', but it also printed articles about Chess and Whist. *Knowledge* published an article by the young Percy Ryves in June 1897 entitled 'Day Views of Venus' in which Ryves listed known naked eye sightings of Venus between CE 398 and 1750, as well as sightings made by himself in March 1897.⁸ In the September *Knowledge* he stated that: 'Venus, now considerably N. of the sun, is still clearly visible in daylight. On the 11th August, the writer observed her as late as 12.15 p.m.'

Both of these *Knowledge* contributions were cited in the BAA *Journal* that year, although in 1897, Ryves was not yet a member.^{9,10} He is also mentioned a year later in *Knowledge*, in an article

entitled ‘Notes on Comets and Meteors’ by W. F. Denning (1848–1931), who mentioned that P. M. Ryves (based at Stone, Staffordshire), T. E. R. Phillips and Vaughan Cornish witnessed a meteor ‘brighter than Venus’ on April 5.¹¹

Percy Ryves’ contributions to *English Mechanic* also predate his BAA membership. For example, in April 1898 he wrote a short article about observing Mercury in the evening sky, submitted from the same address, ‘Rough Close, Stone, Staffs.’¹² This location was just a few miles from the family home at Upper Tean, where Percy Ryves’ father had died, aged 63, in the previous January.¹³

Early BAA contributions, 1899–1905

Percy Ryves was elected a member of the BAA on 1899 May 31, aged 17. His proposer was E. M. Ryves (probably his cousin) and his seconder was E. Walter Maunder (1851–1928). Ryves’ address was now Fenny Bentley Hall, at Ashbourne in Derbyshire, some twenty miles east of Upper Tean.¹⁴ Fenny Bentley had been associated with the Beresford name since the 14th century and Percy Ryves’ maternal grandmother, Georgiana Beresford, was his link to that village (see Figure 1).

Six months later, as reported in BAA *Memoir* Vol IX (part I, p.13) W. F. Denning said that he, Ryves, and four other Meteor Section members were unsuccessful on the night of 1899 Nov 14, because the Leonids were ‘obliterated’ by the weather. As a result Ryves’ first successful contribution to the BAA was an observation of the partial eclipse of the Moon (made from Weybridge) which took place on 1899 Dec 16/17.¹⁵ He was one of 18 observers mentioned in a brief Lunar Section report compiled by Walter Goodacre (1856–1938) the following year. From 1899 to 1903 Ryves’ main interest certainly appears to have been observing meteor showers, especially the Perseids, and he is listed as a contributor to the Meteor Section on three occasions during the 1900/1901 observing year.^{16,17,18}

However, it is clear that the young Ryves’ interest was rapidly turning to variable star observing, possibly inspired by the brilliant nova in Perseus discovered by T. D. Anderson (1853–1932) on 1901 February 21. Two months later, on April 22, writing to *English Mechanic* from Exeter, Ryves stated ‘I am led to think from my observations that the Nova remains near minimum (now 6 mag.) for some time, then quickly brightens up to a maximum (now +4.5 mag.) and again quickly fades, the maxima thus forming a sharper point in the light curve from which to reckon. From my observations, together with the notes which have appeared in these pages, I have deduced a period of 4d. 22h. and find this accords well with the observed brightness.’¹⁹

The year 1901 also saw Ryves’ first recorded BAA observation of an established variable star, namely of R Coronae Borealis on 1901 Sep 14, which he recorded at a magnitude of 5.6. He made three other magnitude estimates of this star that year. On 1902 March 23 Ryves added a second long established variable star to his observing schedule; this was U Orionis, which he estimated at mag 7.3 on that date. While he only submitted a total of 4 magnitude estimates to the BAA in 1901, this total increased to 22 in 1902, with all his observations being made in the February to July period.

In 1902, Col. E. E. Markwick (1853–1925), in his report of BAA Variable Star Section activity, listed the Section as having 13 active members (excluding himself) and he stated that 4 of these 13 were ‘occasional’ observers, one of whom was Percy Ryves.²⁰ Ryves was, at that time, listed as observing from Topsham, near Exeter, and

using a 3-in. (76mm) refractor, a 1 5/8-in. (41mm) Dollond refractor, and opera glasses. The 3-in. refractor was BAA instrument no. 5, listed in the Association’s instruments as ‘An achromatic telescope, 3-in. aperture, with small tripod table stand and wooden tripod garden stand.’ It had been presented to the BAA by Mr G. T. Davis.²¹

Later in the 1902 observing year, Ryves is mentioned in the relevant Meteor Section reports.^{22,23} He had moved location yet again, from Topsham to Walkern, near Stevenage. Kelly’s *Directory* for 1902 lists 16 private residents in Walkern, one of whom appears to have been Percy’s brother George Bernard Ryves, living at ‘The Laurels’. In the later interim report on the 1902 Perseids, Ryves’ observations are specifically mentioned as follows:

‘Mr. Ryves, at Walkern, near Stevenage, noted a short, very swift, streaked meteor in Cygnus on July 14, 11h 20m, as probably a Perseid, while another possible Perseid made its appearance on the following evening.’ The report adds that on July 27 two more Perseids were seen by Ryves and another by him on the following night and that Ryves (along with Brook, Clark, Denning, Holmes, Knight and Rabone) had also observed a fireball at 10:30 p.m. on 1902 July 13, reports of which were summarised by Walter Besley in the *Journal*.²⁴

The year 1903 saw brief mentions of Ryves appear in reports by the Comet and Jupiter Sections, concerning observations of Comet 1902 Perrine made by Ryves from Ashbourne with his 3-in. refractor²⁵ and observations of Jupiter mentioned in the Interim Section Report for the 1902 apparition.²⁶ The years of 1903 and 1904 appeared to be barren ones in Percy Ryves’ observing schedule, but at that time a coming total solar eclipse in Spain was looming in the minds of those BAA members with the funds to travel abroad and Ryves was one of those who decided to head for the eclipse track.

A total solar eclipse

The solar eclipse of 1905 August 30 would reach its greatest duration (3 minutes 46 seconds) in northern Spain, where totality would occur just after 13:00 UT at an altitude of 55° in the south-south-west of the sky. Percy Ryves chose to observe the eclipse from Soria, some 90 miles west of the city of Zaragoza, where he would lose only three seconds of duration (see Figure 2).

He described his experience in the BAA report compiled by F. W. Levander.²⁷ ‘In choosing my station I aimed at two points: firstly, to avoid places to which many observers were going, and



Figure 2. The track of the total solar eclipse of 1905 across Spain. The point of greatest eclipse (GE) and Ryves’ location are marked. Diagram by Fred Espenak/NASA.

Mobberley: Percy Mayow Ryves (1881–1956)

secondly to get as high as possible above the sea level. I actually stationed myself at Soria, after having failed to find a suitable place in the mountains immediately to the north, and here I had an elevation of a little under 4,000 feet, with a splendid position on a hill overlooking the town and commanding an extensive view of the surrounding country. The sky on the morning of the eclipse was cloudy, but it cleared just in time for the total phase, and the air was very pure. On account of some mishaps I was obliged to alter my original plan, and to reconstruct apparatus at the last hour.'

He concluded: 'Altogether 11 plates were exposed, nine during totality, two just after. These latter are worthless, and one of those taken during totality is spoiled by shake. Six others are more or less fogged and also (most of them) out of focus. The remaining two plates are fairly successful. I had a good view of the prominences with the Davis telescope (and observed the second contact) both at the beginning and end of totality, but being single-handed I could not get through all the work in the time, and I was too late to expose my last two plates before the end of the total phase.'

Some 22 years after that Spanish eclipse Ryves wrote a short article in the *RAS Monthly Notices* on the shadow bands he had seen that day,²⁸ stating that the 1905 experience had convinced him 'that the shadow bands were the result of light from a very small source, a small segment of the Sun's disc, revealing the irregularities of density in the atmosphere, in a manner similar to that in which the irregularities in the glass of a window pane are revealed by the light of the planet Venus.'

Ryves' experience in Spain changed his life profoundly. To quote Dr R. L. (Reggie) Waterfield (1900–1986), speaking about his colleague half a century later:²⁹

'In the year 1905 Ryves went to Spain to observe a total eclipse of the Sun. He found there what he described as the least cloudy spot in the whole of Europe; and so without further ado he decided to remain there, in order that he might have the best possible opportunities for observing his beloved variables. This in itself is a clear indication of his great devotion to astronomy.'

After making the decision to stay in Spain, Ryves' variable star observing, which had virtually stopped, increased exponentially. Clearly, despite only having just turned 24, he had strong enough self-belief to enable him to take such a drastic step, although it appears he only earned a frugal living as a private English tutor to Spanish pupils while in Spain. Many years later, on two separate occasions, he applied for grants from the Royal Society to fund his Spanish based Mars observing programme and his variable star work.³⁰ As part of the second application he explained that, regarding his prolific variable star work: 'A unipersonal record of this kind could be obtained only at a station favoured with exceptionally clear skies and by an observer free from family and social relationships'.

Ryves' initial addresses in Zaragoza (also called Saragossa), were Torrero 426 or Torrero 76. In a 1907 French astronomy book (which lists Ryves' interests as meteors, variable stars and Jupiter)³¹ his address is given as 'care of Senor Miret at the British Consulate in Zaragoza', but around 1909 his address changed permanently to 41 Miguel Servet, Zaragoza. Remarkably, a photograph taken from the roof of that building in 1925 still exists (see Figure 3).

BAA VSS backbone

BAA VSS records show clearly the dramatic increase in Ryves' observing totals immediately following his decision to stay in



Figure 3. A 1925 photograph taken, remarkably, from the top floor of No. 41 Miguel Servet, Zaragoza, where Ryves lived while in Spain. The building, now re-numbered No. 61, was a 4-storey construction of the late nineteenth century. *Zaragoza Antigua Flickr archive.*

Spain. At the start of 1905 he had typically been reporting a mere 5 magnitude estimates per month but by 1906 he was on a roll, with 72, 95 and 94 magnitude estimates reported in January, February and March respectively. His total figure for 1906 would be 691 with his favourite star being R CrB.

In his VSS Interim Report no. 14, on long-period variables observed from 1905 October to 1906 October,³² Col. Markwick lists contributions from 14 observers, with a cumulative total of 925 observations. Ryves' total of 209 is only exceeded by the 236 made by Markwick himself. He also mentioned Ryves' work in *English Mechanic*,³³ especially regarding the naked eye magnitude of Betelgeuse in 1906–1907.

In Markwick's Interim Report no. 15, published two *Journals* later,³⁴ he summarises the work on the 'irregular variables' observed in 1905 by Section members, specifically referring to Ryves' and Brook's contributions on R Corona Borealis. Markwick stated: 'A most interesting set of observations, including two excellent series by Br. [Brook] and Ry. [Ryves]. The first observation of the year, on January 15, by Ry., made the star 5.9m., and a gentle decline apparently set in until April 12, when 7.5m. was reached. Immediately after this a most rapid fall took place, reminding one of Algol's drop, only infinitely greater in extent. It reached 12.5m. on May 10, and Ry. was so fortunate, or perhaps we may say so energetic, as to secure five observations while the star was on the down grade.' He added 'We congratulate Mr. Ryves on his observations, some of which at the beginning of the year were made at 2.30 a.m.' Observations of the faded Nova Persei 1901 made in 1905 were also included in the report, with a note of 10 estimates by Ryves.

As explained half a century later by Waterfield,³⁵ 'Ryves was one of the first variable star observers to carry into effect the highly desirable, but arduous procedure of observing long-period variables as far as possible up to their disappearance into the sunset, and again as soon as possible after their emergence from the sunrise; because, since these stars often have periods in the neighbourhood of a year, a considerable stretch of their light curves tends to get poorly observed, sometimes over several consecutive seasons. This means that [Ryves] as a routine, had to prolong his observations all through the night from sunset to sunrise.'

Over the coming years Col. Markwick continued to mention Ryves in his regular *Interim Reports*. In the sixteenth of these³⁶ he summarised the lightcurves of six short period variables observed in the 1899–1906 period, listing a total of 215 magnitude estimates by Ryves.

In his Interim Report no. 17, concerning long period variables in 1906,³⁷ Markwick stated: 'There has been an immense infusion of energy into the Section during the year 1906, the total number of observations, 2,865, being more than three times that in 1905. Out

of these, Mr. A. N. Brown contributes 950, just about one-third; and the quality of his work is as good as the quantity. Both he and Mr. P. M. Ryves have made some very fine series of light-determinations; in several cases the light-curves can well be deduced from the work of these two energetic observers taken separately. They have not hesitated to prosecute their researches far into the early morning hours, whereby observations of a star are obtained which are well distributed over the year.'

It was clear that Percy Ryves was making excellent use of BAA Instrument No. 5 from his Spanish site and he sent a report to the secretary J. A. Hardcastle which appeared in the 1906–1907 Council report for 'Instruments belonging to the Association.'³⁸ Ryves reported that: 'The Davis telescope... has been in constant use during the past twelve months in the observation of Variable Stars of considerable range, over a thousand light determinations having been made during that period.' Ryves also wrote an article entitled 'The recent maximum of Mira' in *Nature* during 1907.³⁹

Ryves' variable star observing output continued to increase throughout 1907 and 1908 and Markwick continued to enthuse about Ryves' output in his Interim Reports^{40,41,42} during those years. Meanwhile, Ryves witnessed the transit of Mercury across the face of the Sun on 1907 Nov 14 and contributed a note on this to the *Journal*⁴³ where he wrote:

'I see in the *English Mechanic* that arrived this morning that the transit of Mercury was not well observed in England, I therefore send this note, thinking it might possibly interest members to know that it was successfully observed at Saragossa. The four contacts were observed by myself, and a number of photographs were obtained. I hope to be able to send an account later.' His report was read out at the 1907 Dec 18 BAA meeting by the secretary, Mr Hardcastle.⁴⁴

Once again Ryves contributed a short report to the BAA Council on his continued use of BAA Instrument No. 5 in the 1907–1908 period, stating: 'The instrument No. 5 is in good condition and has been used, as before, for the observation of variable stars. The weather has been somewhat less favourable than usual, but a considerable number of light determinations have been made during the year. The instrument is used specially for observing the stars on the list of the '3-inch scheme' of the Variable Star Section, Mira, Chi Cygni, and R Leonis being amongst those selected for co-operation.'⁴⁵

FRAS, but reporting stops!

During 1909 Ryves applied to become a Fellow of the Royal Astronomical Society (RAS). His proposer was the Revd Daniel Higham Sparling (the rector of Biddulph Moor, Congleton) and Ryves' occupation on the application was given as a 'Farmer', yet there appears to be no evidence whatsoever of his farming activities!⁴⁶ His name appeared as a new RAS Fellow before the end of the year.⁴⁷

Ryves would eventually contribute no fewer than 18 papers to the RAS, most of which dealt with his observations of variable stars, but the start of his membership precisely coincided with his observations failing to arrive at the BAA Variable Star Section. From singing Ryves' praises the tone of Col. Markwick seemed to change to one of exasperation at the Spanish magnitude estimates failing to arrive in England, thus badly affecting the annual tally. For example, in his Interim Report no. 28, concerning SS Cygni in 1909, Markwick states 'It is most unfortunate that those of Mr.



Figure 4. Comet Halley, photographed by E. E. Barnard on 1910 May 29.

P. M. Ryves, F.R.A.S., have not been received in time to enable them to be incorporated in this report.'⁴⁸ In the next *Journal* (Interim Report, No. 29 – Long-Period Variables in 1909) Markwick is just as frustrated: 'It is unfortunate that up to the time of writing Mr. P. M. Ryves has been unable to forward his observations, which usually bulk largely, and contribute much to the accuracy of our work as a whole. This is doubtless the reason, also, why the total number of observations shows a falling off this year.'⁴⁹

The situation had not resolved itself one year later, when Charles Lewis Brook (1855–1939), in his VSS Report No. 1, covering observations of SS Cygni in 1910,⁵⁰ stated: 'It is much to be regretted that Mr. P. M. Ryves has again failed to forward his observations.' Note the use of the word 'failed', implying it was totally Ryves' fault!

Quite what caused this sudden lack of correspondence starting from 1909 is unclear. Had Ryves temporarily neglected the BAA for the RAS, or were personal reasons involved?

The BAA had never been his sole destination for observations, as he often sent data to *Astronomische Nachrichten* and the observatories at Harvard, Budapest, Copenhagen, Potsdam and Utrecht. Perhaps the imminent return of Comet Halley was a factor? Certainly Ryves was still occasionally observing other objects in the night sky. In the *Observatory* magazine, no less a person than W. F. Denning reported, on 1909 April 25, that he had received a letter at Bristol from Mr Ryves. He stated, regarding the 'January Quadrantids or Boötids' that: 'Mr Percy M. Ryves of Zaragoza, Spain informs me that on 1909 January 2, 16h 50m to 18h 0m, he counted 210 meteors. Three were equal to Venus and five between 0 to 1 mag; five pairs appeared simultaneously. The sky was very clear. Mr Ryves mentions that he had never seen a Perseid shower so rich as this.'⁵¹

Comet Halley is, of course, associated with the year 1910, and Ryves was better placed to see it than his colleagues in Britain. He reported observing it from Spain, in 1910 February, using binoculars.⁵² As well as sending his early observations of Halley to the BAA they were also mentioned in the prestigious science periodical *Nature*. On Feb 5, writing from Zaragoza, he said: 'Readers of *Nature* may perhaps be interested to know that Halley's comet can now be seen with a good pair of field-glasses. Careful estimates make it almost exactly equal to an eighth magnitude star'. Ryves then listed his observations made on January 8, 12, 13, 15, 30 and Feb 3.⁵³

On 1910 April 17, using the 3-in. BAA refractor and a power of $\times 18$, Ryves estimated the famous comet to be mag 3.8. On April 20 he made it mag 2.7, by comparing it with gamma Pegasi. On April 24 he succeeded in photographing the comet and recording a one degree long tail.⁵⁴ At the 1910 May 25 BAA meeting, held at Sion College on the Victoria Embankment, Mr E. Walter Maunder, in the

absence of Comet Section Director Dr A. C. D. Crommelin (1865–1939), brought before the meeting a number of communications received regarding Halley's Comet. Three slides exhibited by Mr Maunder were taken by Ryves from Zaragoza.⁵⁵ They were all exposed on May 9, and evidently 'not quite at the same time'. An examination of the slides themselves showed 'a very extended tail and a good deal of detail'. Maunder commented that many observers in better observing locations in other parts of the world 'had seen a very different-looking object from the one which had so much disappointed them in London.' On May 15 and 16 Ryves had been able to see more than 60° of Halley's tail (see Figure 4).⁵⁶

From 1910 onwards Ryves' variable star reports to the BAA seem to have stopped entirely, although he was clearly still in Spain, at Zaragoza, and was still in occasional contact with Variable Star Section Director C. L. Brook.⁵⁷ Eventually a few observations were received from Ryves in 1912, and on 1913 July 13, writing from Zaragoza, he challenged Brook's opinion that two maxima of U Geminorum had probably been missed by observers between 1912 May 24 and Sep 12. Specifically, Ryves wrote that his own morning twilight observations of Aug 21 and 22 showed that there had probably been a long maximum around Aug 14, with an uncertainty of one or two days, or a short one on Aug 19.⁵⁸ He appended his observations made at the time and added that 'On 48 other occasions U Geminorum was looked for but not seen, being too faint for the instrument employed.' On a similar theme, in 1914, Brook mentioned Ryves' correspondence on the subject of SS Cygni, stating: 'With reference to the second maximum of 1912, which was imperfectly observed, Mr. Ryves kindly forwarded a few observations for the early part of March, which confirm the lightcurve as drawn, and more especially the very rapid rise on March 13th.'⁵⁹

Being 1914, the First World War then intervened, affecting the BAA, as described in the recent paper by Jeremy Shears.⁶⁰ From 1916 March 2 the Military Service Act might have made Ryves liable to be called up, as he was well within the age limit of 41, but he is never referred to as having a military rank. Spain was neutral, but Ryves' correspondence in the *Journal* is absent from 1914 to 1919 and his variable star observations are literally non-existent from 1913 to 1919. One can only assume that as it was too dangerous to travel to and from Spain during that period, he chose to stay in England, where the weather did not inspire him to observe very often. This theory is reinforced by Ryves' own comments many years later in the *Monthly Notices* of the RAS, where, regarding one of his favourite stars SS Aurigae, he said that no observations of the star were made from Zaragoza from 1915 to 1922 inclusive.⁶¹

On 1920 Aug 20 the British comet discoverer W. F. Denning (1848–1931) discovered a third magnitude nova in Cygnus (now known as V476 Cyg) which, four days later, rose to a magnitude of 1.6. Suddenly back in action, Ryves was observing the new nova the night after its discovery. His experience with estimating the magnitude of such a bright star led him to write a paper for the *Monthly Notices* the following year, regarding 'The Accidental Errors of Argelander's Method'.⁶²

Astronomy resumes

In 1921 Percy Ryves, still living in England, re-emerged fully into BAA life, just before Brook resigned from the post of VSS Director. As pointed out by Shears in a recent paper,⁶³ 24 members of the VSS wrote to the *Journal* expressing regret at Brook's resignation

and giving thanks for his kindness. Ryves was one of those 24 co-signatories. Ryves was present at the 1921 June 29 meeting at Sion College, where he asked questions of Mr Knobel about the discovery of papers relating to Roger Bacon. He was also listed as an observer of the aurora of 1921 May 13/14 which he observed from Walton-on-the-Hill in Surrey and described as follows: 'The intensity of the auroral light was exceedingly great, especially at an altitude of about 15° to 20° above the northern horizon, and here the colour was a clear pea-green to apple-green tint.'⁶⁴

Ryves' Surrey location of Walton-on-the Hill was only a few miles from the observatory of the Revd T. E. R. Phillips (1868–1942) at the Rectory in Headley, where an 8¼-inch (210mm) refractor, a 12¼-inch (311mm) reflector and an 18-inch (457mm) reflector, often used by BAA members, were located. Ryves' sister, Evangeline Esther Ryves, lived at Damory Cottage, Walton-on-the-Hill and Percy Ryves appears to have lived with her whenever he was in England at that time. She was registered at that address (in 1918) as a member of the Society for Psychical Research in the Society's *Proceedings* Vol. XXIX (see Figure 5).

Many years later, Reggie Waterfield remembered Ryves' visits to Phillips' observatory and recounted his memories: 'In the years that Ryves was observing in Spain he used to take occasional holidays in this country, visiting his family in Surrey. But these holidays were in no sense holidays from astronomy. It happened that some four miles from his home was the observatory of our old friend, the late Dr T. E. R. Phillips, at Headley. At that time I was myself a fairly frequent visitor to the Headley observatory and I well remember, whenever Ryves was in England, how every night that the skies showed the least chance of being clear, he would trudge the four miles through the woods at sunset and trudge them back again at dawn.'⁶⁵ [Note: If Ryves had used that route in modern times he would have walked across all six lanes of the M25 motorway! – MM]

Also in 1921, on April 4, from Phillips' observatory, Ryves made an early observation of Comet Reid (1921a) as reported by A. C. D. Crommelin.⁶⁶ Ryves was also listed as one of six meteor observers who saw a bright meteor flash across English skies on the night of 1921 Oct 6 at 9:28 GMT.⁶⁷

Mars during 1922 to 1924

Mars was due to reach opposition on 1922 June 10 and Ryves was clearly planning to leave England once more and head for a latitude where the planet's declination of almost –26° would not result in its transiting just above hedge height. With Mars reaching a diameter of 20 arcseconds, this was not an opportunity that Ryves wanted to miss. The Cambridge University Library Janus RGO collection contains a letter (8/130) from Ryves where he mentions being awarded a



Figure 5. Evangeline Ryves was Percy Ryves' sister. Ryves often lived with her at Walton-on-the Hill when not in Spain. Note the wording which gives the name and address. Found in the archives of the Richmond History Center, Virginia, USA.

Royal Society grant of £120 in '1921/1922' to resume his Spanish work, so this was quite possibly a grant to cover his intended Mars programme. At the 1922 Feb 22 BAA 'Conversation' meeting Ryves showed photographs of Madeira and Tenerife locations which were potentially very suitable for observing the planet that summer.⁶⁸ Possibly his last appearance before heading for Tenerife was at the RAS meeting on April 22, where he spoke about his observations of Denning's nova in Cygnus, discovered two years previously.⁶⁹ After that meeting the Red Planet was clearly top of Ryves' agenda and some 19 years later he described how he acquired the mirror he used to observe Mars in 1922:

'With regard to the *present* condition of some of With's mirrors, I have always suspected that subsequent attempts at improvement have been, to use Mr. Hargreaves' words, 'not perhaps always to their advantage.' Some years ago a 10¼-in. [260mm] With mirror came into my possession. Although this was in 1922 it had evidently never been used, and was wrapped in a copy of *Herefordshire Times* dated about 1870. Described by its maker as 'absolute perfection' this was certainly a very fine mirror.'⁷⁰

Quite what the resulting 10-inch reflector Ryves used at Tenerife looked like is unknown, but many years later he did reveal some preferences when talking about Newtonians: 'Personally, I would not look twice at an equatorial reflector which lacked a revolving tube or head. Some years ago, when mounting a 9-inch (229mm) reflector in a fixed wooden tube, I arranged a revolving head. I made the moulds out of cardboard and shellac varnish and had the castings made at a local foundry. After a little trouble in getting the right adjustment it worked quite satisfactorily. About flat supports, I do not think a very great strain is necessary provided the flat is well balanced. I once used a single-arm support made from lightning conductor tape, about ¾-inch by ¾-inch [19mm×19mm], nailed to the wooden tube, and adjusted it by twisting it this way and that; the arrangement was rather crude, but it worked all right as a temporary expedient. These adjustments are not always so difficult as some people imagine, given a little horse sense.'⁷¹

While Ryves was in Tenerife he managed to enrol another BAA member, namely Julio de la Rosa, of Estacion del Cable, Santa Cruz de Tenerife. Julio was elected to the BAA on November 22, proposed by Ryves and seconded by Phillips.⁷²

Dr W. H. Stevenson (1894–1975) was Mars Section Director during the 1922 apparition and wrote during the following year that 'Mr. Ryves has been very successful at Tenerife, and has promised to communicate full details of his work to the Section. These will be especially welcome in view of the poor presentation of the planet for observers in higher latitudes.'⁷³

Stevenson, although an expert on telescopes and a very keen observer, was far from being a great Section Director, and it was W. H. Pickering (1858–1938) who best reported Ryves' 1922 observations, especially in his report a few years later.⁷⁴ Pickering noted that most of his reporting observers were British, but due to the declination of Mars in 1922 only Ryves and Schofield (who also travelled south) had observed Mars at that apparition. Pickering's analysis contained observations by Ryves, on Tenerife, from June 29 to August 8. He quoted Ryves' comments precisely in places, such as the following observations: 'Amongst the most interesting features I should specially mention the shape of Syrtis Major...' and '...the prominent canal running down the 240th meridian (Aethiops?), the prominence of Solis Lacus which I saw disconnected from Sinus Aurora, the brilliant white spot in about 340°–60° on July 8 & 9, the strength of the Nepenthes system, and that

of Trivium Charontis, Cerberus.'

The current Mars Section Director Dr Richard McKim has previously mentioned some of Ryves' observations during that 1922 Mars expedition to Tenerife, especially in comparison to the 2001 apparition some 79 years later, and with special regard to specular reflection 'flashes' occurring when the illumination is just right. Richard noted that Ryves found an intensely bright spot at the SW corner of the Hellas basin near latitude –50° on 1922 Jul 7, which was also mentioned by Pickering. (See Figure 6a). Richard also mentions that Ryves recorded Edom as 'small and brilliantly white' on 1922 Jun 30 (21h UT) and July 1 to July 7. On July 9 Ryves showed the feature less bright, approaching the CM.⁷⁵ (See Figure 6b).

In Richard's exhaustive 1999 BAA *Memoir* 'Telescopic Martian Dust Storms: A Narrative and Catalogue' he mentions (on pages 43–44) a 1922 July 9 'bright yellow-white cloud' described by Slipher and adds that: 'European observers were all badly placed to view the July 9 event. In the BAA records however, Ryves and Du Martheray showed a bright spot in NW Deucalionis Regio.'

The 1922 expedition was not Ryves' only Mars observation period. In 1939 he recalled a 1924 observing session thus: 'I can confirm Professor F. O'B. Ellison on one point. I was observing in 1924 with a 16-inch [406mm] refractor, and could not find Juventa Fons, but saw Melas, as a well defined black spot, connected to Auroras Sinus by a curved canal, Agathodasmon, also sharp and black. I only saw this on one occasion when definition was exceptionally good. I think observers often confuse Juventas Fons and Melas.'⁷⁶

Ryves seems to have spent some of the 1924 Mars opposition period observing from Madrid as in one of his reports on SS Aurigae he mentions spending 1924 Aug 25 to Sep 29 at the *Observatorio Astronomico* there.⁷⁷ Opposition was on August 23 that year, and the planet peaked at 25 arcseconds in diameter. Richard McKim, commenting on the draft of this paper in 2016, clarified that as well as observing with the 16-inch refractor at Madrid, Ryves also used his 10-inch reflector at Zaragoza during 1924. His Mars observations ran from July to October. Richard was surprised that Ryves did not see Juventa Fons, but wonders if the seeing on the Spanish mainland may have been poor?

In the 1920s, apart from sensational claims regarding the mythical Martian canals, there was much speculation in the national papers about detecting radio signals from Martians as the planet drew close to opposition. So in August 1923, Ryves' comments were hyped in typical fashion in both *The Daily Mirror* and in *Time* magazine.⁷⁸

As reported in the *Daily Mirror* (see Figure 7): 'Mars, accord-

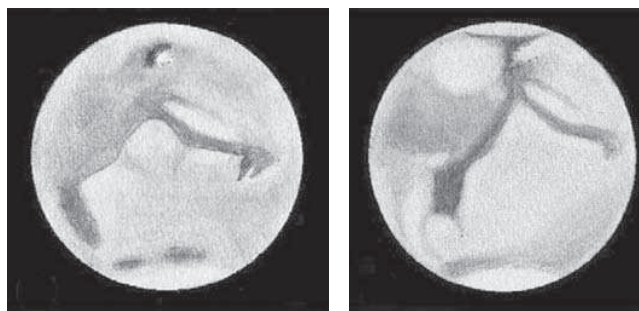


Figure 6a (left). Mars sketched by P. M. Ryves at Tenerife on 1922 Jul 7 23h 00m (approx.) using a 254mm refl., ×310, ×400, CML= 320°. Note the bright 'flash' in S. Hellespontus.

Figure 6b (right). Mars sketched by P. M. Ryves at Tenerife on 1922 Jul 9 24h 00m, 254mm refl., CML= 315°. Bright patch, but fainter than on Jul 7, approaches the CM. Drawings from Richard McKim's *Mars 2001 apparition report*.

Mobberley: Percy Mayow Ryves (1881–1956)

ing to Mr P. M. Ryves, of Tenerife, is playing monkey tricks... because the Astronomer Royal and his assistant stargazers at Greenwich are all on holiday...' The article continued 'The strange phenomenon in Mars was noted by Mr. Ryves from his eagle's nest at Tenerife, which is 8,000 feet above the sea level. The observations of Mr. Ryves lead him to think that Mars is not a 'dead world', as some astronomers have considered it to be.'

In *Time*, the theme was similar: 'The existence of organic life on Mars has again become a subject of lively speculation through the report of P. M. Ryves, a British astronomer who has been studying the red planet for the past ten years through a powerful telescope from a height of 8,000 feet on Tenerife, one of the Canary Islands. Mars 'appears far from a dead world', says Mr. Ryves, but 'whether it is inhabited by intelligent beings like ourselves is perhaps the most absorbing question that confronts the human race.'

In 1924 *English Mechanic* featured two articles where Ryves' 1920s planetary work was mentioned; one piece, about Jupiter, was written by W. F. Denning and the other by Ryves himself. Regarding Jupiter observations, Denning wrote that: 'According to observations of Mr. P. M. Ryves of Saragossa, Spain, during the last two years the Red Spot Hollow had a rotation period of 9h 55m 36.4s, while the South Tropical Disturbance indicated a rate of 9h 55m 32.6s.'⁷⁹

Ryves' own 1924 *English Mechanic* article mainly concerned celestial photography, Mars, and an Aldebaran occultation disappearance he witnessed on April 8, using the 3-inch refractor. Ryves gave some interesting details of his experiences observing in Spain as follows: 'As regards the central plateau of Spain, in August and September there is a tendency for a thunderstorm type of weather to develop. The worst cloudy spell I ever had at this station (Zaragoza) was one August (1907) when there were thirteen consecutive overcast nights. Such a thing is, however, very rare; there are usually a large proportion of clear nights at this time of year, but I should not like to guarantee the definition. Personally, I rather favour the south-east coast. To anyone who wants to try a high station, Spain certainly offers a choice; but there would be no particular reason for going to Madrid unless for luxury.'⁸⁰

After describing the pros and cons of various Spanish towns he added: 'Tenerife is undoubtedly one of the most charming islands in the world and an expedition, as Mr. Heath suggests, is something to remember. I went there to observe the last opposition of Mars (1922) when it was still more necessary to get as far south as possible, but definition was disappointing. Piazzzi Smyth seems to have had remarkably good luck during the comparatively short time that he was on the island. I spent six months at an altitude of about 8,000 ft, and tried 10,000 ft., but never had a really perfect night for high power work. It is, of course, possible that other parts of the island might be better; let him try who will. There are some obstacles which, however, can be overcome. At sea level the sky is very cloudy in summer, but above about 5,000 ft. clouds are rare in July and August. The upper part of the island being

MARS CHANGING.

Pranks While Stargazers Are on Holiday.

SIGNS OF GROWTH.

Mars, according to Mr. P. M. Ryves, of Tenerife, is playing monkey tricks. It is hardly surprising, because the Astronomer Royal and his assistant stargazers at Greenwich are all on holiday.

Mars, a truculent fellow, whom the ancient Romans adopted as their divinity of war, seems to have been the first of the planets to take advantage of the supposed privacy.

While the Astronomer Royal was possibly inhaling sea breezes Mars, hoping not to be observed, developed a tumour on one of its sides.

The strange phenomenon in Mars was noted by Mr. Ryves from his eagle's nest at Tenerife, which is 8,000 feet above the sea level.

The observations of Mr. Ryves lead him to think that Mars is not a 'dead' world, as some astronomers have considered it to be.

Apart from the tumour which it seems to have developed in the course of the last few years, its 'canal' system is apparently changing.

'The Martians, if there be any, are wonderful builders of 'canals,' a well-known astronomer told *The Daily Mirror* yesterday.

'The 'canals' seem to multiply or decrease or change their direction about twice a century.

'Mr. Ryves, I see, has detected a new 'canal' running down the 140th meridian.

'Personally, I think, that the term 'canal' is a wrong one. They should be described as channels, which would account for their development by the processes of nature.

'If Mars be really inhabited the race must be a hardy one. Probably the changes, which are noticed from time to time, are due to volcanic eruptions.'

Figure 7. The bizarre feature about Mars, citing Ryves, that appeared in the *Daily Mirror* during 1923 August.

practically uninhabited, a camp has to be formed and provisions brought up by mules every four or five days.'

As described in a 2003 paper by Richard McKim,⁸¹ Attkins also headed south to view Mars in 1924, but to Madeira. Attkins consulted Ryves regarding equipment, as he described in *English Mechanic*: 'Acting on the advice of Mr P. M. Ryves I decided to take equatorial mounts and a strong wooden tube.'⁸²

Variable star work resumes

Ryves' return to prolific variable star work coincided closely with the departure of Charles Lewis Brook and the appointment of Felix de Roy as the BAA VSS Director in 1922. Ryves' decline in this work, 12 years earlier, had coincided closely with the retirement of Col. Markwick and the appointment of Charles Lewis Brook! The new Director, Felix de Roy (1883–1942), was very

pleased that Ryves was back in action within the VSS. In April 1924 he enthused: 'Older Members will be as delighted as the Director to see in Table I. the once familiar abbreviation Ry, designating one of the most active contributors under Col. Markwick's pioneer directorate: Mr. P. M. Ryves, F.R.A.S., of Zaragoza, Spain. Mr. Ryves, who is an energetic observer, and has a wide knowledge of the subject, did yeoman service to the Section in the past, and contributes several beautiful series to the present report. May he long continue his work with us.'⁸³ Ryves submitted 140 observations of long period variables in 1923, according to de Roy's report (96 are listed for 1923 in the BAA VSS database).

A few years later, on the death of Markwick, Ryves managed to get his obituary from Spain to the *RAS Monthly Notices*, just in time for the deadline, and it was marked 'The following Obituary notice was received too late to appear on the proper page.'⁸⁴

In that same year of 1923 Ryves had a paper published in the *Monthly Notices* concerning the variability of RW Sagittarii, a star he had observed from 1910 to 1914 and again from 1922 to 1923. He concluded that the star had a variability period of 188 days with a mean amplitude of 1.7 mag.⁸⁵

In 1925 de Roy announced that Arthur Brown, Percy Ryves and Harold Thomson had been nominated as members of the International Astronomical Union Commission (No. 27) on Variable Stars for 1925 to 1928.⁸⁶ Ryves attended the IAU Conference in Cambridge that year which ran from July 14 to July 22. (see Figure 8). While in England for the IAU Conference Ryves continued to use the telescopes at Phillips' Headley Observatory. For example, his SS Aurigae reports reveal that he used the Headley instruments for a lengthy eight week span, from 1925 July 28 until Sept 21. The next year he was back at Headley from 1926 Sept 10 to Sept 19.⁸⁷

Throughout the coming years de Roy almost always mentioned Percy Ryves' outstanding variable star work in his reports in the *BAA Journal*.^{88–90} Now part of IAU Commission No. 27, Ryves was often quoted in their *Transactions*. Specifically, his call for more accurate sequences and (with Dr Merrill) a closer study of R



Figure 8. Ryves at the 1925 IAU Conference at Cambridge, England. Ryves is second from the left on the back row with a moustache and a check pattern tie, not looking at the camera, but to the left. Identification is from a key probably written by W. H. Stevenson. On the left, next to Ryves, is M. R. Madwar. On the right, same row, smiling, is a young A. E. Milne and (right edge) 'Heinrich', possibly V. V. Heinrich. *Cambridge Institute of Astronomy Library*.

Aquarii, was included in their literature.⁹¹

As already mentioned Ryves had a number of papers concerning analysis of his favourite variable stars published in the *Monthly Notices*. A typical example was his 1927 paper entitled 'Z Aquarii', where he explained how, over the last three years in Spain, he had made 63 observations of this star and deduced a range of magnitudes from 7.2 to 9.7 with a period of 134 days, as opposed to the 216 days proposed by Hartwig.⁹²

In 1927 W. M. Lindley (1891–1972) wrote about the equipment he used for variable star observing⁹³ which drew a response from Ryves, which contained interesting information about his own techniques and equipment.⁹⁴ Ryves explained that, unlike Lindley, he preferred not to use binoculars. He currently used 'two small refractors of 2 and 1 1/4-inch aperture with the lowest powers being 8 and 5 diameters and the useful fields of view being 5 and 8 degrees'. His 2-inch [51mm] refractor (the BAA 3-inch stopped to 2-inches) was on a tripod with altazimuth controls, and the 1 1/4-inch [32mm] refractor could be hand-held or used on the 2-inch mount.

Ryves agreed with Lindley that it was surprising that revolving eyepiece changers were not used more often as they were so convenient, but he thought the problem was that low power eyepieces often used 2-inch barrels, which meant the mechanism needed removing during the observation. Also, existing eyepiece changers could rotate inadvertently if eyepieces of different weights were used. Ryves then explained that to prevent his eyepieces dewing up he often kept them in an inside pocket, where body heat would warm them up until required. Ryves also added that he owned two 'ce-

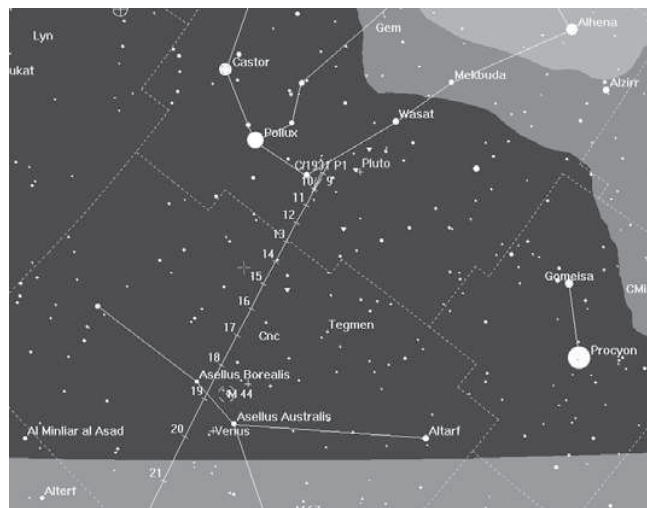


Figure 9. The track of comet Ryves, very low in the morning sky from early to late 1931 August.

Mobberley: Percy Mayow Ryves (1881–1956)

mented' monocentric eyepieces made by Steinheil which gave a tiny light transmission improvement over a Huyghenian. One of these delivered a power of $\times 200$ on his larger 5-inch [127mm] refractor.

Despite his prolific variable star observing Ryves still occasionally observed the planets. Phillips, at a meeting held in 1929 June, mentioned the Jupiter *Memoir* he had been working on for the 1922, 1923 and 1924 apparitions.⁹⁵ Referring to the planet's southerly declination at that time he lamented that he had received no Jupiter observations from the southern hemisphere, but praised the efforts of Ryves, Atkins and Sargent, and a new member, B. M. Peek (who would serve as Jupiter Section Director from 1934 to 1949). In recent times John Rogers has noted that during the 1928/'29 period Phillips and Ryves recorded Jupiter's South Temperate Belt as grey 'but immersed in strong reddish colour' or having an 'overlying red veil'.⁹⁶ Phillips also mentioned Ryves in his report on work carried out at Headley Observatory during 1930, stating that: 'Mr P. M. Ryves was in England during a portion of the summer, and obtained a number of observations of variable stars'.⁹⁷

A comet is discovered

Two months after the death of W. F. Denning, destiny decreed that another British amateur astronomer would follow in his footsteps and bag a 'BAA comet'. On the morning of 1931 August 10 at around 03h 36m GMT, Ryves was hoping to get an early magnitude estimate for U Geminorum as it emerged from invisibility into the dawn twilight at Zaragoza. The Sun was only 15° below the horizon and the U Gem field a mere 3° high when Percy Ryves spotted a comet roughly two degrees northwest of the field and a mere 5° above the horizon itself (see Figure 9). The comet was only 23° from the Sun. Ryves estimated its magnitude as 5 and he confirmed his discovery on Aug 12.17 and 13.16, reporting the magnitudes as 5.5 and 5 respectively in a telegram sent from Zaragoza to Copenhagen. The 1930s equivalent of the modern CBAT, the Bureau Central Astronomique de l'Union Astronomique Internationale, based at Copenhagen Observatory, issued *Circulaire* no. 330 (IAUC 330) via a telegram on Aug 13, alerting observers to the possible discovery of a new comet.

The first independent confirmation was on Aug 14.14 when Georges Van Biesbroeck (1880–1974) at Yerkes Observatory found the comet in twilight with the naked eye and estimated the magnitude as 4. He described the coma as bright and $30''$ in diameter, with a sharp nucleus. A broad tail extended at least 0.5° in a posi-

BUREAU CENTRAL ASTRONOMIQUE DE L'UNION ASTRONOMIQUE INTERNATIONALE OBSERVATOIRE DE COPENHAGUE				
COMET RYVES (1931c)				
August 13 Mr. Ryves sent us the following telegram:				
"Buskin Ryves mipalone fodaship stop babble mofament fofimate fatilege honurant Ryves"				
The telegram is given in a Code unknown here.				
Telegram from Prof. Shapley:				
"Van Biesbroeck has observed Ryves' Comet as follows:				
1931 UT	R.A. (1931)	Decl.	Mag.	Length of tail
Aug. 14.3952	8 4 32.5	+22 45 46	4	10
1931 August 15	(331)			Elis Stromgren

Figure 10. UAI (IAU) *Circulaire* 331 announcing Comet Ryves (see text for details).

tion angle of 290° .

The next day the UAI (IAU) issued *Circulaire* no. 331 naming the comet as Comet Ryves (1931c) and reporting a telegram received from Prof Harlow Shapley (1885–1972) at Yerkes, stating that Van Biesbroeck had observed Ryves' Comet on Aug. 14.3952 with a magnitude of 4 and a 1° tail (see Figures 10, 11 & 12). Bizarrely, *IAUC* 331 also listed an incomprehensible coded message of gobbledygook received from Ryves which was reproduced as: 'Buskin Ryves mipalone fodaship stop babble mofament fofimate fatilege honurant Ryves' The circular stated: 'The telegram is given in a code unknown here.' Indeed!

The Yerkes photo logs for that time do not mention Van Biesbroeck's August 14 observation of Comet Ryves but they do reveal that Yerkes plates of the comet were exposed on Aug 15, 17 and 21 by other observers including Recht (Aug 15) and Mehlin (Aug 15 & 17) using 10-inch and 3-inch focal length lenses. A crude position was measured from the first 10-inch lens 13 minute exposure, but the others were just labelled 'fogged' or 'daylight sky'.

A further ten *Circulaires* were subsequently issued as more observations of Ryves' comet were captured (*IAUCs* 332 to 335, 337, 339, 342, 344, 345 and 346). A number of observers managed to spot the comet up to Aug 20, as it sank deeper into the twilight. These included E. C. Bower at Lick Observatory on Aug 15 & 16, Ryves, Bower and Nakamura (Kyoto, Japan) on Aug 17 (when the magnitude was around 2 or 3) and Ryves plus Duncan (Mt Wilson) on Aug 19. C. E. Smith (Lick) managed to obtain the first really precise position on Aug 19, with the comet just 5.3° above the horizon. The last pre-perihelion observations were made by Duncan and Nakamura on Aug 20, when the comet was only 16° from the Sun.

Van Biesbroeck wrote a couple of pages about Comet Ryves in his popular 'Comet Notes' just after its brief appearance, clarifying that on Aug 14.39519 'the comet was easily located before sunrise and its position determined from a plate taken with the 24-inch [610mm] reflector.' John C. Duncan and Seth B. Nicolson of Mt Wilson compared it with the other discovery at that time, Comet Nagata. They noted that Nagata (seen in the 100-inch [2.54m]!) was yellow 'in striking contrast to Ryves' comet, which, seen with the 6-inch [152mm] reflector in the dawn of August 20, was greenish-blue.'^{98–102}

Two months later the comet was recovered by Van Biesbroeck on Oct 9.45, but the magnitude had dropped to 9. In the USA he received publicity for recovering the comet in the *Indiana Star* and *Montana Butte Standard* on Oct 10 and 11. Under a heading entitled 'EXPERTS GET PHOTO OF ELUSIVE COMET – WILLIAMS BAY' the Indiana newspaper text (page 18) read: 'Ryves's comet, an elusive wanderer in the skies which for two months has

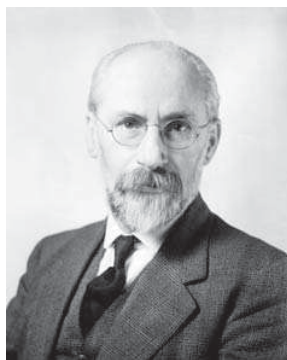


Figure 11. Georges Van Biesbroeck was the first person to confirm Ryves' comet.

played hide-and-seek in the rays of the sun, was seen and photographed today by astronomers at Yerkes observatory here, it was announced by Director Edwin B. Frost. They had to catch it by stealth, waiting until just before dawn. Then, over the horizon, just ahead of the sun, came the comet. Prof. George Van Biesbroeck leveled the great Yerkes telescope at the stranger, made his photographs and, later in the dark developed his plates.'

Ryves' comet was last seen on 1931 Dec 16, by Schmitt, who estimated the magnitude then as 14.5.^{103,104}

The first attempt at a definitive orbit was made by the BAA's Revd Martin Davidson in 1933. Half a century later, in 1983, Edgar Everhart & Brian Marsden determined that the pre-1931 orbit for Ryves' comet was elliptical, with a period of 192,000 years, while the post-1931 orbit was also elliptical, but with a shorter period of 1,210 years. The difference was due to the comet passing only 0.167 au from Jupiter on its inward journey. So, if Everhart & Marsden were right, Ryves' comet will return in the year 3141.¹⁰⁵ Perihelion had occurred on 1931 Aug 25 at just 0.075 au from the Sun. Crommelin described the discovery as 'a BAA comet' adding that 'It has the smallest perihelion distance of any comet observed since 1887 (with the possible exception of the eclipse comet of 1893).'

Martin Davidson also addressed the knotty problem of determining an orbit at the November BAA meeting. Crommelin commented that: 'Dr Davidson had devised many improvements in orbit methods. The difficult case of Ryves's Comet was a good test of their value'.¹⁰⁹ Davidson would also mention Ryves' comet in his Presidential Address to the BAA at the 1937 AGM.¹¹⁰

The final years in Spain

Despite now being a comet discoverer, Percy Ryves did not rest on his laurels. He continued observing his favourite variable stars from Spain up to 1938. He also continued contributing papers to the RAS. One such paper was his study of V Sagittae. By 1932 Ryves had observed the star on a total of 1,243 occasions between 1910 to 1912 and 1923 to 1931. In order, as Ryves put it, 'to preserve continuity during unavoidable absences from Zaragoza, some observations were made at other localities.' Specifically, Ryves observed the star from Madrid in 1924, from Cambridge in 1925 (when the IAU met there), from Leiden in 1928 (another IAU meeting), and 'on several occasions' from T. E. R. Phillips' observatory at Headley.¹¹¹

The fluctuations in the magnitude of V Sagittae were a puzzle to Ryves and he speculated that it might be a type of nova. He added, with obvious frustration, that 'a request that a spectrum should be photographed at observatories in Canada and Scotland was in both cases 'unfavourably entertained'.

A further RAS paper by Ryves, on the subject of RT Hydrae, was published in 1933.¹¹² That paper was based on 348 observations by himself, between 1910 to 1914 and 1923 to 1933 using that trusty 3-inch 'Davis' refractor (sometimes stopped to 2 inches) and a 5-inch Equatorial refractor. Ryves



Figure 12. Comet Ryves' discovery as covered in the *Pittsburgh Post Gazette* for 1931 August 27.

found that the star varied between mag 7.4 and 9.4 and he used the larger refractor only when RT Hydrae was near minimum. Ryves' report concluded a variability period of 252.5 days.

With so much observing experience Ryves was happy to challenge the VSS Director Felix de Roy if he felt he knew better, especially regarding historic observations. An example of this was published in the 1933 February *Journal*¹¹³ in response to de Roy's 'report no. 22' entitled 'Four Irregular Variables in 1925 and 1926'.¹¹⁴ In that paper de Roy had said that 'for the first time in the history of U Geminorum, the previous regular alternation of long and short maxima, which was believed to represent a fundamental trait of its light variation, has broken down.'

Ryves remembered the 1909/1910 period well, and wrote: 'Mr de Roy has evidently overlooked the case of 1909. In September of that year a long maximum was observed and another, also long, took place in 1910 January.' Despite this criticism de Roy did not waver, countering that¹¹⁵ 'Contrary to what Mr. P. M. Ryves appears to think, I did not overlook the facts of 1909, and if I did not mention them (together with several other similar cases), it is simply because I considered them inconclusive. In this opinion, I am relying on the authority of Prof. A.A. Nijland, Director of the Utrecht University Observatory, and President of the Committee on Variable Stars of the International Astronomical Union, whose extensive and careful work on the U Geminorum type is well known.'

As in previous periods Ryves did not restrict himself to variable star observing while still in Zaragoza. For example, he timed the disappearance and reappearance of Regulus in the lunar occultation of 1933 April 1, and he still observed meteors. His view of 'The Great Giacobinid Shower' of 1933 Oct 9 must have been a high point in his meteor observing career. He reported that 'By 19h 30m the meteors were too frequent to count' and 'Maximum between 20h 0m and 20h 15m, when shooting stars were coming at the rate of 100 a

minute', although the average brightness recorded was only between 3rd and 5th magnitude.¹¹⁶

Ryves also participated in the worldwide meteor programme supporting the second Byrd Antarctic Expedition of 1934. That observational programme was carried out at selected times during the Antarctic night of 1934 April to August. J. P. M. Prentice (1903–1981) reported that George Alcock (1912–2000) was made responsible for the observations in the UK, whilst Felix de Roy (Belgium), P. M. Ryves (Spain) and T. Stephanides (Greece) were among those co-operating elsewhere in Europe.¹¹⁷

As well as Ryves' favourite variable stars (U Gem., SS Aur and R Sct at that time) he was keen to observe anything new and dramatic. The nova discovered in Hercules on 1934 Dec 12 by J. P. M. Prentice, the BAA Meteor Section Director, was not only dramatic, but another BAA success, and Ryves was soon observing the new star. The *Daily Express* for Dec 14 mentioned Prentice's nova on the front page, printed a crude finder chart on the back page, and interviewed Prentice, at Stowmarket, on page 11 (see Figure 13a). The reporter added that the BBC had wanted Prentice to do a radio broadcast, but Prentice's father had refused and packed his 31-year old son off to bed 'giving orders that he was not to be disturbed'!

At discovery the new nova, later named as DQ Herculis, was mag 3.4, and peaked at magnitude 1.5, just 9 days later. A fade followed, with the nova losing 3 magnitudes in 94 days, followed by a more rapid decline of 8 magnitudes in just one month. DQ Her then brightened once more to reach a second fainter maximum of 6.5, which was then followed by a long slow decline to minimum. In the *Monthly Notices* of the RAS, and also in the *BAA Journal*, Ryves published a note on the peculiar lightcurve of Prentice's nova from 1934 Dec 18 to the end of February, based on observations made by him from Spain on 72 nights.^{118,119} Ryves commented that there was a remarkable similarity between his lightcurve and that of V Sagittae (see Figure 13b).

By 1934 political tensions were simmering in Spain and the situation became steadily worse during the next two years. The Spanish Civil War started on 1936 July 17 and would last for three years. Thirteen days earlier Ryves had written to Sir Frank E. Smith, the secretary of the Royal Society, asking for funds to continue his work in Spain (he had previously received a similar grant some 14 years earlier). The letters, contained in the Cambridge University Library 'Janus' archives (RGO 8/130), explain that a Government Grant application had failed (simply because Ryves was living abroad) and the 'change of regime and financial crisis in Spain, deprived the writer of the greater part of his income [making it] materially impossible to maintain the observatory any longer'. He added that paying his rent and subscriptions now caused him considerable difficulty. Ryves suggested that '£100 would make it possible to continue for one year'. Sir Frank recorded that the Royal Society Officers were unlikely to approve the request, but he wrote to Dr Harold Spencer Jones at the Royal Greenwich Observatory for his opinion. In his reply to Sir Frank (which started off 'Dear Smith'!) Spencer Jones said he would 'strongly support' Ryves' application, as he knew of his 'excellent' work which was of 'special value' and also knew of Ryves' 'considerable financial straits', although he felt the situation in Spain would mean Ryves would not be able to survive once the money was spent. Although no obvious record of a new grant being awarded exists, Ryves survived beyond July 1936 and so it seems a Royal Society grant of some sort was probably awarded, following the strong endorsement of Spencer Jones.



Figure 13a. J. P. M. Prentice received much coverage in the *Daily Express*, published on 1934 Dec 14, regarding his nova, which Ryves studied intently in the coming months.

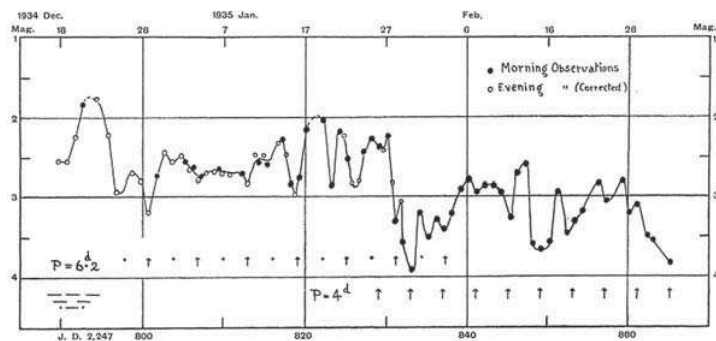


Figure 13b. A lightcurve of Nova Herculis 1934, created by Percy Ryves and based on 83 observations made on 72 nights in Zaragoza from 1934 December to the start of 1935 March.

Eventually Ryves had to flee from Zaragoza (although he was still there in September 1937) but he managed to take with him the optical parts of his 5-inch equatorially mounted refractor. Within a few days he arrived at Hendaye, in the extreme south-western corner of France, right next to the Spanish border. At that time a French observatory (Observatoire de l'Academie) was based at the Chateau d'Abbadie in Hendaye, and was compiling a catalogue of half a million stars, which may have been why Ryves relocated to that town.¹²⁰ He quickly made a temporary mounting for the optics of his refractor, mainly of wood, and was, initially, able to continue his observations with little interruption. However, as the Spanish war dragged on, Ryves eventually returned to England full time. This appears to have taken place at some point in 1938.

The BAA VSS database lists a total of 5,352 variable star magnitude estimates, of 30 stars, made by Ryves between 1901 and 1935, with his most productive year in Spain being 1908. Ryves published the observations of one of his favourite stars, SS Aur, in three parts between 1928 and 1937, dealing with his earliest (1910–1914) results last.¹²¹

Ryves' own estimate of his observing totals was far, far higher than the BAA total. In his 1936 application for a Royal Society grant he claimed he had made 35,000 magnitude estimates from Spain, with almost 2,000 of V Sagittae alone.

A medal and a return to the UK

At the start of 1938 the RAS awarded two Jackson–Gwilt Medals to two different BAA observers, namely to Ryves, and also to F. J. Hargreaves (1891–1970), at its AGM on 1938 Feb 11.¹²² The letter informing Ryves of this award was written to him by Sir Frank Dyson (1868–1939), the former Astronomer Royal, on 1938 Jan 17.¹²³

On presentation day, Ryves could not attend, so the RAS President, Harold Spencer Jones (1890–1960) presented the first medal to Hargreaves and then asked Mr W. M. H. Greaves to convey the second Jackson–Gwilt medal and gift to Percy Ryves, who had 'continued to carry on his observations under the most difficult and trying conditions' due to the situation in Spain forcing him to flee to Hendaye. The President hoped that it would not be long before Ryves could continue his observations in happier circumstances. However, Ryves did not return to Spain until 1947, not least perhaps because as soon as the Spanish Civil War was over, the Second World War started. On his return to England Ryves moved permanently to his sister's village of Walton-on-the-Hill, within easy reach of the observatory at Headley.

The first mention of Percy Ryves' presence back in the UK and at Phillips' observatory, was by Reggie Waterfield in comments concerning the attempts to observe the lunar eclipse of 1938 Nov 7 from Headley.¹²⁴ Waterfield said that: 'Mr Ryves, Dr. Fry, Mr. Phillips and myself had made arrangements to compare photographically the brightness of the totally eclipsed Moon and the Full Moon in exactly the same way as I did during the lunar eclipse in 1932. Unfortunately, we only had 3½ minutes of perfectly clear sky in which to expose our cameras on the totally eclipsed Moon, whereas exposures of ten times that length were necessary.'

A month later, on 1938 Dec 28, Ryves' presence at a BAA London meeting (also attended by George Alcock and Dr J. G. Porter) was recorded in the minutes.¹²⁵ Ryves' presence at Headley (see Figures 14a and 14b) was mentioned again by Waterfield when describing an attempt to photograph the new comet Peltier on

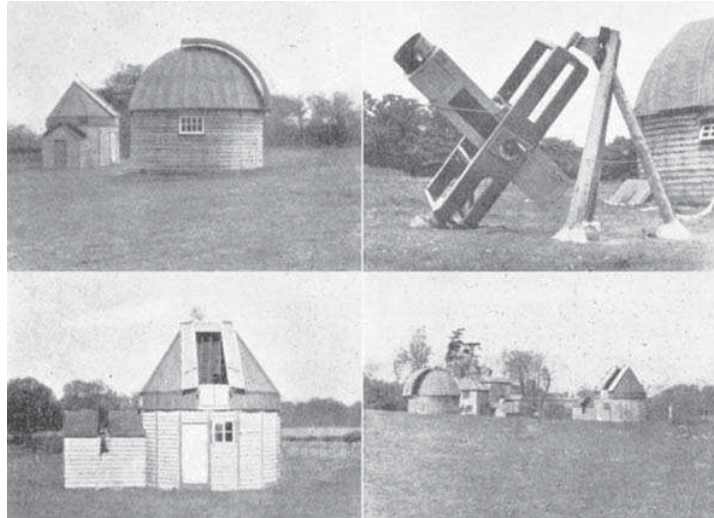


Figure 14a. Headley Observatory in its prime in the 1920s, photographed by W. H. Steavenson. The dome housed the 12¼-inch Calver, while the cone-shaped building housed the 8¼-inch refractor. The 18-inch is out in the open air! These photographs first appeared in Bob Marriot's splendid paper about the 12¼-inch Calver in the 2006 December *Journal*.

1939 Jan 24.¹²⁶ On that occasion Waterfield reported that his ten minute exposure, dodging clouds, recorded a tail of about 15' and a magnitude of 7.5, adding: 'The comet was first picked up at Headley by Mr. Ryves while I was loading the plate-holder.'

Similarly, Waterfield reported another joint observing session at Headley at the meeting of 1939 Feb 22, when he mentioned observations by himself and Percy Ryves of Dr Zwicky's fading supernova in NGC 4636.¹²⁷ On Feb 12 Waterfield photographed it with the 6-inch triplet and Ryves, with Waterfield, observed it visually with the 18-inch reflector, on that date, and on Feb 15, 19 and 20. Waterfield was sure that Ryves' magnitude estimates of the mag 14 supernova would be more reliable than his own, although Ryves commented 'I cannot say anything definite about the magnitude as I do not know the magnitudes of any neighbouring stars suitable as standards of comparison. I do not think there has been a decrease in brightness of more than half a magnitude during the time the star has been under observation. The continuous spectrum with very broad dark bands, described by Dr. Waterfield, is very difficult to interpret.'

Throughout the late 1930s and early 1940s Ryves became an increasing presence at BAA meetings just as World War Two began to disrupt the meeting start times. Ryves is mentioned dozens of times in the *Journal* during this period, mainly for his questions and comments at meetings but also for his written notes on a variety of subjects. The subjects of these articles could be as diverse as *The star system of zeta Auriga*, *Drilling for oil in California*, or, *Visual versus Photographic Astronomy*.^{128,129}

At a wartime meeting of the RAS, held on 1940 May 10, President H. C. Plummer introduced Percy Ryves as the first speaker. The subject was Ryves' observations of RW Sagittarii. Ryves explained that he had already presented (in 1923) an analysis of his observations of this star, made between 1910 and 1914. In addition, he had made many later observations of RW Sgr from Spain, but, as a war-time precaution, most of the data was still locked up in the strong-room of a Spanish bank! While he admitted that



Figure 14b. Ryves often observed at the Revd T. E. R. Phillips' (left) Headley Observatory when in England, sometimes alongside Reggie Waterfield (right). Archive pictures from Headley Rectory and the University of Chicago.

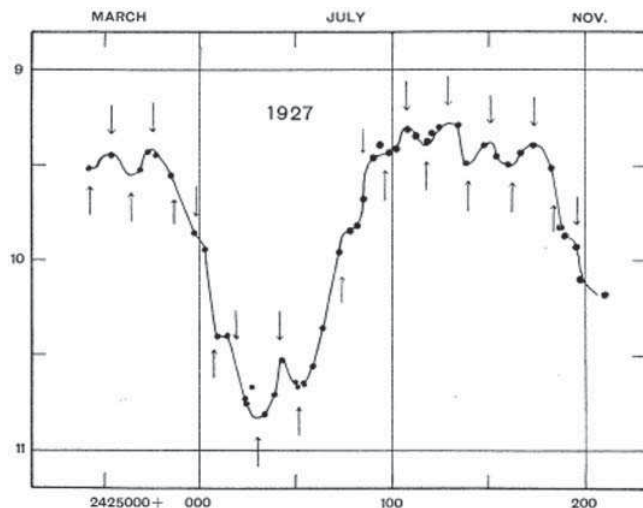


Figure 15. A lightcurve of RW Sagittarii in 1927 created by Percy Ryves based on his observations made from Zaragoza.

photographic methods had superseded visual observing in some respects Ryves thought that his own observations showed the conclusions from an 18-year Harvard photographic patrol of RW Sgr were in error. The Harvard study had concluded that RW Sgr varied with a period between 300 and 400 days. Ryves said that his observations proved this was incorrect, because the photographic patrol only lasted for a few months each year. Ryves had determined that the period was actually 188 days up to 1926, but 191 days after that year (see Figure 15).¹³⁰

Nine months later, at the start of the 1941 February BAA meeting the BAA President F. J. Sellers announced that ‘Nothing further has been heard of ‘Object Ryves’ discovered on December 28 [1940] by Mr. P. M. Ryves, who suspected that it might be a minor planet.’¹³¹ Ryves revealed its nature, many years later, in a moment of humour during his monthly talks.¹³² ‘I once found a strange star and as the sky had clouded over I thought it better to wire Copenhagen. Unfortunately, the only result was that I spent about ten shillings on what was only a minor planet!’

At the 1942 April 29 meeting Ryves described how to make a 2¼-inch (57mm) aperture telescope of 20-inches (508mm) focal length for 12 shillings and sixpence.¹³³ The telescope was exhibited by Ryves at that meeting.

Mars Section Director and ‘a comic turn’

By 1942 October, five months after the death of T. E. R. Phillips, Reggie Waterfield had been BAA Mars Section Director for 11 years, but this period was due to end because he was moving to a wartime role with the Royal Army Medical Corps in the USA. At the 1942 AGM the President F. J. Sellers said ‘Before adjourning this meeting I would like to announce that Council has appointed Mr. P. M. Ryves as Acting Director of the Mars Section for the time being, as Dr. Waterfield has been drafted abroad. We hope that members will send in their observations to Mr. Ryves, c/o The Assistant Secretary, at the registered address of the Association.’¹³⁴

Ryves had served on the BAA Council for the previous two sessions and would be Mars Section Director for the next 14 years, despite only making one recorded observation of the Red Planet (in 1941) since returning from Spain. However, in many ways he had been given an impossible task because very few Mars Section reports had been written since 1920. His predecessors Steavenson (with whom the problem started in 1922), Peek (1930/’31) and Waterfield (1931/’42) had created a mountainous backlog of

Mobberley: Percy Mayow Ryves (1881–1956)

observations which Ryves inherited as a millstone.

But although the Mars Section Directorship was an important appointment, one could argue that Ryves’ most memorable role would be announced a few months later. At the BAA meeting of 1943 April 28 the President, F. J. Hargreaves (1891–1970), announced for the first time that he had pleasure in calling upon Mr Ryves to tell the members ‘about forthcoming astronomical phenomena’.¹³⁵ Whether this was intended to be a regular monthly event at that stage is not clear, but Ryves so excelled at the task that he became an indispensable part of the monthly London meetings. Even by the second of Ryves’ talks at the 1943 May meeting Hargreaves was saying ‘I hope that Mr. Ryves will make this talk a permanent monthly event.’¹³⁶ Indeed, numerous Presidents from 1942 to the mid-1950s enthused greatly over Percy Ryves’ delivery, which, as the years ticked by, became increasingly humorous, and he did not hold back on voicing his personal opinions.

For example, at the 1943 July 28 meeting Ryves retorted (regarding adjusting the clocks) that ‘I think double summer time is an abomination!’¹³⁷ Just six months after his first talk about the current night sky, at the 1943 Oct 27 meeting, following the AGM, Hargreaves made his enthusiasm for Ryves’ talks clear, saying ‘We shall not be able to have any papers read owing to the shortness of the time, but we cannot disperse without hearing Mr. Ryves’s monthly commentary on forthcoming astronomical events.’¹³⁸

It was a rare meeting during that era when Ryves did not deliver a talk and when he could not attend the audience disappointment was quite apparent from the meeting minutes. Some years ago, on 2000 Jan 22, this author received an e-mail from Dr Brian Marsden (1937–2010) which recalled Ryves and his talks from the BAA meetings of the early 1950s:

‘Dear Martin... Curiously, there is no obituary of him, in either the *JBAA* or the *MNRAS*. He lived and worked in Spain for quite a few years, moving back to England later in life. He had his own inimitable way of giving the sky notes at BAA meetings (he was a predecessor of yours in that), a sort-of one-man comic turn always seeming to be quite forgetful about what he was trying to say... Regards, Brian’.

As well as his talks, Ryves continued to churn out increasing amounts of observing notes and news items in the *Journal* during this period, such as: *Comet Oterma a Minor Planet?*, *A Hole in the Heavens*,¹³⁹ *Stars as Parents of Nebulae*, *Photographic Observations of Comets* and *Cod Liver Oil for Stargazers*.¹⁴⁰ He also wrote the obituary for Mary Adela Blagg (an IAU Lunar Commission member and Variable Star student) following her death in 1944.¹⁴¹

As well as a young Patrick Moore occasionally offering his views at the BAA wartime meetings, and, who knows, maybe being influenced by Ryves’ humorous delivery, the comedian Will Hay (1888–1949) was sometimes there and occasionally asked Ryves a question. At the meeting of 1944 March 29, following discussions about observing Neptune’s satellite Triton, which Hay had seen through W. H. Steavenson’s 20-inch (508mm) reflector, Hay suggested that Ryves might include ‘some slight information about comets in his interesting statement of coming events’ adding ‘I am sure it would produce fresh interest amongst the new members.’¹⁴² However, despite being a comet discoverer, Ryves was not happy with Will Hay’s idea, mainly because he said he feared ‘poaching on the preserves of another department’ and ‘getting into trouble with Dr Davidson.’

Being the Mars Section Director Ryves was definitely entitled to an opinion on the existence of Martian canals, and he did not mince

his words at the wartime meeting of 1944 April 26 when he stated ‘I have been careful to avoid saying anything which might give rise to a controversy about the canals. We have heard far too much nonsense about the canals from people who definitely assert that they are waterways made by intelligent beings and are almost ready to declare that you can see the tow-paths and barges, but this is nothing to the rubbish we have been treated to by some of the ‘big pots’ of astronomy who have never seen Mars through a telescope.’¹⁴³

Ryves in the post-war era

On 1945 April 25, to laughter from the BAA audience, Ryves seems to have foretold the death of Adolf Hitler just five days before it actually occurred, stating, at the start of his monthly talk: ‘Since we last met there have been some clear nights. I have not heard of anyone having seen anything of the Lyrid meteors, but news comes from Nigeria of the appearance of a very bright meteor there, and a learned professor of those parts has declared that it portends ‘the death of a powerful man in Europe.’¹⁴⁴

With the war finally coming to an end, it was now safe to live in London again, with no risk of aerial bombardment. F. J. Sellers, the acting *Journal* Editor and BAA Solar Section Director, returned to Muswell Hill¹⁴⁵ and an address for the Mars Section Director Ryves (previously given as c/o the Assistant Secretary, Burlington House) was listed for the first time in the *Journal*. But his address was not at Walton-on-the-Hill, but 33 Sydney Street, Chelsea. With the War now over Ryves explained the delays the conflict had caused within the Mars Section¹⁴⁶ and the processing of eleven years of data. Ryves claimed that his time had been ‘almost entirely absorbed by work in a government department’, from which he expected to be released in the near future. The evacuation of Mars reports from London during the War had made them impossible for him to study but Ryves thanked Dr Alexander, Mr J. R. Bazin and Mr E. H. Collinson for their help in this difficult time.

Another duty that Ryves’ carried out as the Mars Section Director was writing a two page obituary for E. M. Antoniadi (1870–1944) in the *Journal*.¹⁴⁷

Ryves’ observing days were not totally over, as in the BAA report on the Giacobinids of 1946 Oct 9, J. P. M. Prentice lists 19 observers, who included George Alcock of Peterborough, Roy Panther of Northampton, and Ryves, observing from Wareham in Kent. In addition, with BAA member A. M. Newbegin deciding to dismantle his observatory and donate the equipment, Ryves had acquired Newbegin’s Sidereal Watch (BAA instrument 65) from 1945 onwards, so clearly he still planned to observe celestial objects.¹⁴⁸

According to Richard McKim, Ryves returned to Spain in 1947, no doubt to recover his observations left in the bank there 9 years earlier! Richard adds that Ryves was travelling around Spain and not fixed in one location. This return visit was mentioned in a 1947 December Mars Section *Circular* and a letter from Ryves to A. W. Wilkinson on Dec 14.

On 1948 May 14 a Special General Meeting of the RAS was held to approve the sale of the late T. E. R. Phillips’ 8¼-inch refractor, which William Coleman had bequeathed to the RAS in 1911. The RAS had then loaned it to Phillips who had used it, and let other astronomers use it, for 30 years, until Phillips’ death in 1942. The 8¼-inch f/15.1 instrument had stayed at Headley during the last 6 years, and the RAS had rented the ground and maintained the building, but now the RAS Treasurer, Sir Harold Spencer Jones (the same man

who had endorsed Ryves’ grant application 12 years earlier) intended selling the telescope for £1,200. The new owner would be the Port Elizabeth Centre of the Astronomical Society of South Africa.

Ryves strongly opposed the sale, as he claimed that not enough notice had been given and that Phillips had wanted RAS Fellows (like Ryves himself) to continue to use the telescope, and not simply convert it into money. A letter from Ryves was read out at the SGM but to no avail. The sale was approved, with only Ryves objecting to the motion, and on 1948 June 30 the instrument arrived at Port Elizabeth. [Note: In 2015 October the refractor (plus accessories) was put up for auction with a reserve price of \$10,000 and sold to Daniel Mobati of San Francisco, the highest bidder, for \$17,500.]¹⁴⁹

From 1943 April to the start of 1949, Ryves had been an almost permanent feature of every BAA London meeting with only a couple of meetings missed during that six year span. However, in the spring months of 1949 his absence was extended, almost certainly because he was moving house, out of London. From 1949 May his new address was listed in the *Journal* as The Old Bakehouse, Penn, High Wycombe, Bucks.

Following the house move, from the 1949 May 25 meeting onwards, Ryves’ was back with his monthly delivery and the humour was still present, as he started his first talk with the words: ‘Some time ago I mentioned that Uranus had had a baby, referring, of course to the new satellite. Now it appears that Neptune has become envious, if the faint object discovered in America is actually a satellite...’ The joviality continued with another tall story which prompted audience laughter: ‘Speaking of birds: some years ago I was observing in Devonshire and I noted the time at which the larks began to sing with great regularity every morning. Later when near London I made similar observations and from the difference in time I was able to determine the difference of longitude between Greenwich and Exeter. I got very good results though I admit that with transit instruments and wireless telegraphy a rather higher degree of accuracy may be obtainable.’¹⁵⁰

Two months later in 1949 July Ryves attended a joint meeting of the RAS and the Manchester Astronomical Society at Jodrell Bank. Some time ago, Richard McKim spotted that Ryves was labelled in a group photograph taken at that very meeting (see Figure 16).¹⁵¹

Another notable event occurred at the BAA meeting of 1950 Feb 22, where the President, Dr J. G. Porter, announced that the newspapers had dramatically announced that there had been an explosion on Mars and so asked Ryves, as Section Director, to talk about it!¹⁵² In fact, what had happened was that on January 16, Mr Tsuneo Saheki, observing at the planetarium near Osaka, Japan, noticed what he described as a ‘strange cloudy mass’ in a high southern latitude, projecting slightly beyond the limb of the planet; subsequently, Ryves reported¹⁵³ that Mr Saheki was much distressed at the incorrect publicity given to his remarks.

Also during 1950 a young Patrick Moore translated the small French book *The Planet Mars*, by Gerard de Vaucouleurs, into English. In the ‘Translator’s Foreword’ Patrick wrote: ‘I should also like to express my gratitude to Mr. P. M. Ryves, Director of the B.A.A. Mars Section, for most valuable help. As Mr. Ryves said when reviewing the French original in the *Journal* of the British Astronomical Association, ‘No student of Mars can afford to be without this up-to-date little book.’

From 1951 January Ryves’ address changed yet again, for the second time in 20 months. He was still in Bucks but was now living at Moor Cottage, Church Road, Lane End, High Wycombe, some seven miles west of his previous address. From 1950 June until the

end of the year Ryves gave none of his monthly talks. Clearly the second house move had taken its toll on his spare time. However, at the 1951 Jan 31 meeting at Burlington House the President, now Dr Merton, announced that he would call upon Mr Ryves to give one of his talks on forthcoming astronomical events, adding: ‘So many members enjoy these talks that we are glad Mr Ryves has consented to resume them.’ After the talk Merton repeated that he hoped Mr Ryves would continue his talks.¹⁴⁴ The meeting minutes reveal that Arthur C. Clarke played an active role in that same meeting.

In the BAA Council report for the 1950/51 session Ryves was able to offer good news regarding the Mars Section observational backlog. He wrote: ‘A good deal of work has been done on the material accumulated at previous apparitions, thanks to the enthusiastic collaboration of several members. Messrs. Burrell and Fox have contributed the major portion of reports dealing with the years 1943–’44 and 1945–’46 which are nearly finished. A *Memoir* dealing with the apparition of 1941 is definitely complete and in the hands of the printers.’¹⁵⁵

Ryves’ BAA *Memoir*, entitled ‘Volume 37 Part 1 (1951): Twenty-Fourth Report of the Section for the Observation of Mars Dealing with the Apparition of 1941’ was indeed published in 1951, although it was mainly the work of Dr A. F. O’D. Alexander, who had offered his services to Ryves many years earlier. It is perhaps remarkable that even one *Memoir* was produced when one realises the colossal and demoralising backlog of unprocessed Mars observations Ryves inherited from Waterfield, Peek and Steavenson. In 2000 January Brian Marsden (presumably unaware of what Ryves had been lumbered with) commented, in a further e-mail to this author:

‘It seems that he [Ryves] rather neglected the Mars Section he was supposed to direct, and Gerry Merton told me soon after Ryves died (I believe he lived with his two sisters) in 1956 that many beautiful drawings of Mars were found underneath his bed.’

However, according to Richard McKim, despite this tale, all of the Mars Section material stored by Ryves (under his bed or otherwise) survives to the present day.

By 1951 Ryves was approaching 70 and so, living outside London, he could not really be expected to give his entertaining talks at every BAA meeting, but he still delivered them whenever possible and in a humorous and often self-deprecating style. Around this time he appears, labelled, in a photograph taken of attendees at the RAS Summer Meeting held at Exeter on 1951 July 25 (see Figure 17).¹⁵⁶

On 1953 March 25, after a professional lecture by Dr C. G. Little of the University of Manchester, entitled ‘Radio Frequency Spectral Lines of Interstellar Origin’, Ryves commented: ‘I feel rather nervous of speaking after hearing about such marvellous things so very far away. What I have to say will seem like talking about the village



Figure 16. Percy Ryves at Jodrell Bank on 1949 July 1, hanging on to the structure of a radio telescope, at a joint meeting of the RAS and the Manchester Astronomical Society. This is an enlargement from a group photo with a key, the original of which was tracked down by Richard McKim.

pump!’¹⁵⁷ The humour continued a month later when, at the 1953 April 29 meeting, held at the Royal Institution, Albemarle Street, Ryves announced: ‘I have very little to say this time. I made out a few notes and, when I took what I thought to be the paper from my pocket, I found it to be a shopping list!’¹⁵⁸

On 1953 Nov 14 a transit of Mercury was due to occur close to sunset in the UK. Following the AGM, on Oct 28, Ryves alerted members to this event and joked that in view of the sunset time, some BAA members might like to go to Ireland for the transit instead of going to Norway next year for the total solar eclipse.¹⁵⁹ At the following month’s BAA meeting, on 1953 Nov 25, some 11 days after the transit, Ryves continued the banter (to BAA audience laughter) by saying, at the start of his observing notes: ‘Mr President, Ladies and Gentlemen, I must apologise for being partially aphonic, but if you are unable to hear what I say you will not miss much! I am also sorry that I have not come in my best Wednesday go-to-meeting clothes; I went to see the transit of Mercury at a place in the country where I could get a clear horizon, and I am on my way home.’¹⁶⁰

Another entertaining outburst was witnessed by BAA members at the Christmas meeting of 1954 Dec 29, when Ryves had clearly just obtained his 1955 copy of the *Nautical Almanac*, at great expense, and decided to have a full blown rant, to recorded laughter and applause from the members. His words were as follows:

‘I must now refer to an important matter. Some time ago Dr Porter mentioned that much of the information in our *Handbook* is based upon data in the *Nautical Almanac*. The same applies to these talks of mine. Now the *Nautical Almanac* used to cost me half a crown [two shillings and sixpence], but it now costs twenty-five shillings – an increase of a thousand per cent, which is no joke. I am told that it is the fault of neither the Royal Observatory nor the Lords of the Admiralty, but of the Stationery Office. I am beginning to dislike the Stationery Office almost as much as I dislike the Treasury. Of course, I know that everything has gone up to two, three, or four times its previous cost (everything that I can think of, that is, except Oxo cubes), but a thousand per cent!... What I am wondering is whether the people who make the *Nautical Almanac* have had their salaries and pensions increased by a thousand per cent as well. I hope they have!’¹⁶¹



Figure 17. Ryves at Exeter on 1951 July 25, attending the RAS Summer Meeting. Ryves is near the front on the right, between the central ‘arms-crossed’ man (Whitrow, next to Mrs Whitrow) and the lady wearing a hat on the right edge (Mrs Newbegin). Molesworth is between and behind Mr and Mrs Whitrow. McHugh is between and behind Ryves and Mrs Newbegin. Photo by M. A. Ellison.

As well as Ryves’ regular BAA talks and *Journal* notes, in the 1950s he also started to publish a slim magazine aimed at young people, simply called *Observation*.¹⁶² In an e-mail to this author in 2016 Richard McKim described his single copy of this magazine as possibly being aimed at Scout groups.

On 1955 June 29 the BAA President, Reggie Waterfield (now using a wheelchair, due to the effects of polio) announced that the Council, that afternoon, had decided

to award the Walter Goodacre Medal and Gift to Mr Percy Mayow Ryves for his outstanding work on variable stars and in other branches of astronomy.¹⁶³

So it was that on 1955 Oct 26, at the BAA AGM held at the Royal Institution, Waterfield presented his friend Ryves with the Goodacre Medal and Gift to loud and prolonged applause.¹⁶⁴ Waterfield hoped that Ryves would ‘long continue to take part in our discussions, and find time to prepare for publication those of your observations that have not yet seen the light.’ He added that ‘Since 1942 Ryves has been Director of the Mars Section of the Association, and as you know has made valiant efforts to catch up on the arrears left by his predecessor; who, I regret to say, was myself.’

Sadly, now 74 years of age, Ryves was in his final year when he received the Goodacre Medal. He would give only two further ‘Observing Prospects’ talks, on 1955 Nov 30 (when the discovery of Elger’s lunar notebooks was announced by Percy Wilkins and Patrick Moore)¹⁶⁵ and on 1956 Jan 25.¹⁶⁶ Percy Mayow Ryves passed away on 1956 Feb 27, two days before the next BAA meeting, a rare one as it occurred on the 1956 leap day of February 29. His death was not announced at that meeting, but in various publications shortly afterwards.^{167–169} He had lived to within a year of the start of the Space Age.

Ernest Noon (1886–1980) replaced Ryves at the 1956 April meeting, saying ‘This evening we shall all miss Mr Ryves’s monthly talk on current astronomical phenomena.’¹⁷⁰

Ryves’ death was mentioned by his Mars Section successor, E. H. Collinson (1903–1990), who commented ‘All members of the Section will regret the death of Mr P. M. Ryves who was its Director for over fifteen years.’¹⁷¹

A 4-inch altazimuth refractor, owned by Ryves and mounted on a wooden tripod, became BAA Instrument 181 and was given to the Association by ‘C. Ryves’, probably his sister Constance, in 1957.¹⁷² A number of Ryves’ books on mathematics were also bequeathed to the Association, namely *Higher Algebra* by G. T. Hall & S. Knight (London, 1940); *An Introduction to the Differential and Integral Calculus and Differential Equations* by F. Glanville Taylor (London, 1916); and *An Elementary Treatise on the Integral Calculus* by Benjamin Williamson (London, 1891).¹⁷³

According to BAA Instruments & Imaging Section records, compiled by Bob Marriott, the 3-inch Davis refractor (BAA Instrument no. 5) which Ryves used for much of his time in Spain was returned to the BAA and sold by Sotheby’s in 1987.

So, that was the unusual life of Percy Mayow Ryves, a man who was a BAA member for almost 57 years, for the first two-thirds of which he was primarily an observer of variable stars, with the remainder being spent as a Section Director and a monthly speaker at the Association’s meetings. Some sixty years after his death, his obituary, in the form of this paper, has finally been written!

Acknowledgments

I am indebted to Mike Frost for his help in researching Ryves’ contributions to the *English Mechanic* and to Jeremy Shears for locating and obtaining the key to the 1925 IAU conference picture. Bob Marriott’s research into BAA Instrument no. 93 (the 12¼-inch Calver) proved invaluable as it provided previously published pictures of Headley Observatory. Thanks are also due to the Cambridge University Library for supplying the correspondence involving Sir Frank

E. Smith, Dr Harold Spencer Jones, Sir Frank Dyson and Percy Ryves. Thanks to a previous investigation by Tony Kinder, the year of Ryves’ birth was established as 1881, not 1876 (as cited by Dr A. F. O’D. Alexander and in various online sources).

I am also greatly indebted to Dr Richard McKim for sending me the group photographs from the 1949 and 1951 RAS meetings in which Ryves features, his Mars sketches, and for the use of research on Ryves already carried out by himself. His comments at the draft stage of this paper were especially useful. In addition, Richard Baum kindly alerted me to Ryves’ 1897 Venus articles in *Knowledge* magazine.

My final thanks must really go posthumously to the late Dr Brian Marsden, whose e-mail about the Mars drawings found under Ryves’ bed, inside his sisters’ house, first interested me in Percy Mayow Ryves.

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References & notes

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