ASTRONOMY

Planets Back in Sky

October evenings find Mars and Saturn, which have been absent from the evening sky, visible in the northeast. Venus has become a morning star.

By JAMES STOKLEY

➤ THE ABSENCE of planets from the evening sky, which came after Venus, so brilliant during the early summer, switched over to be a morning star, has not continued very long. October evenings find Mars and Saturn visible in the northeast. Their positions are shown on the accompanying maps, which depict the appearance of the heavens at 11:00 p.m., war time, on Oct. 1, and an hour earlier at the middle of the month.

Near the horizon, a little north of the east point, is Aldebaran, the red star which marks the eye of Taurus, the bull. A little higher, and father north, is Capella, in Auriga, the charioteer. Mars is just to the right of the star at the boundary between these two constellations, while Saturn is below. Mars, red in color like Aldebaran, is the brighter of the two planets, but both are so low in the sky that the absorption of their light by the atmosphere dims them appreciably. Later in the night, as they climb into the southern sky, they are seen with their full brightness.

First Magnitude

Among the stars, Capella and Aldebaran both belong to the astronomer's first magnitude. Some other stars of this same class can be seen in another direction. High in the west is Cygnus, the swan, otherwise known as the northern cross. If you look for the cross-shaped figure, the star Deneb is easy to locate, since it is at the head of the cross. Below Cygnus is Lyra, the lyre, and in this is Vega. About as high as Vega, but more to the south, is Altair, in Aquila, the eagle. The sixth, and last of our first magnitude stars that appear on these maps is directly south—Fomalhaut, in Piscis Austrinus. Just above it is Aquarius, the water carrier. This figure is closely connected with Piscis Austrinus, which means "the southern fish." On the old star maps, Aquarius was shown as an old man, pouring water from a jar—and the stream of water was flowing into the fish's mouth!

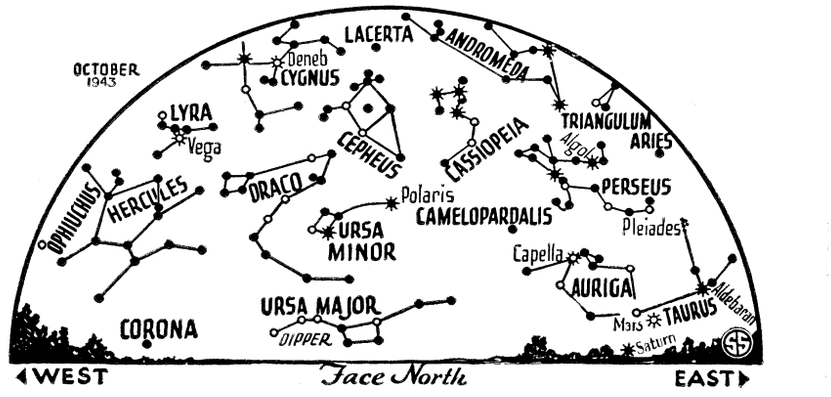
Two, and possibly three, other planets may be seen this month if you get up early enough in the morning. On Oct. 10, Mercury is at greatest western elongation, which means that it rises about an hour and a half before sunrise. This, however, is not as far ahead of the sun as it rises on some occasions, and so it will be rather difficult to locate the planet in the dawn. Venus, however, is easily seen before sunrise in the east, and it is so bright that it will be possible to follow it without much trouble even after the sun has risen. On Oct. 13, it reaches the magnitude of minus 4.3, which is far brighter than any other planet can ever get, and also more brilliant than any star.

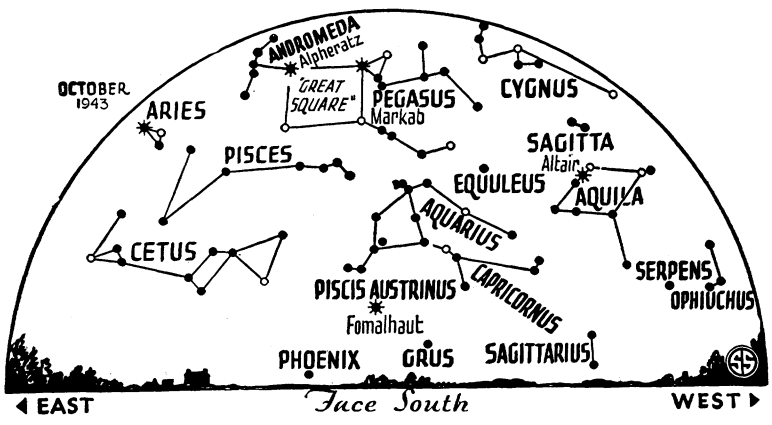
Jupiter rises about 1:00 a.m., and its magnitude is minus 1.7, also very brilliant, though inferior to Venus. On the morning of Oct. 23 there is an occultation, or "eclipse" of Jupiter by the moon, though it is over before moonrise in most of the United States. In New England and the maritime provinces, however, the planet will emerge from behind the moon after it has risen, at about 1:45 a.m. EWT. The moon will be in a gibbous phase, between last quarter and new. Jupiter, therefore, will make its appearance from behind the dark limb of the moon.

With Mars now joining the objects that we can see during the evening we have a chance to watch it as it makes one of its regular visits to the earth. The distance between us and that planet changes considerably. We are about 92,900,000 miles away from the sun, while Mars is 141,500,000 miles from it. Though the earth encircles the sun once every 365.25 days, Mars requires 687 days to go around. Every 780 days (nearly 2 years 2 months) we catch up to Mars, and both planets are in the same direction from the sun. Then the distance between Mars and us is equal to the difference of the distances of the two planets from the sun. But after half of the 780-day period, the planets are on opposite sides of the sun, and then Mars is distant from the earth by a figure which is the sum of the distances. Accordingly, the distance of Mars and earth varies tremendously, the more so since the orbit of Mars is not exactly circular.

When we have the closest possible opposition (the name the astronomer gives to the time that both planets are in the same direction from the sun) the distance between is about 34,600,000 miles, and this occurred last in 1924. Another opposition is now approaching, and while this is not an unusually favorable one, as concerns distances, neither is it a very unfavorable one either. In fact, it is about average.

At the beginning of 1943 Mars was far beyond the sun. On Jan. 1 its distance was 215,960,000 miles. Since then it has been drawing closer—and getting brighter. On the 15th of this month it will be about 63,597,000 miles from us. On Nov. 28 it will make its closest approach, when 50,120,000 miles will separate us. So during this month and next, as you watch the red planet come into better view in the evening sky, you can recall that the planet is making us one of its regular neighborly visits.





✲ ✱ ○ • SYMBOLS FOR STARS IN ORDER OF BRIGHTNESS

Celestial Time Table for October

Oct.	EWT	PHENOMENON
6	3:37 a.m.	Minimum of Algol*.
	4:10 p.m.	Moon in first quarter.
9	12:25 a.m.	Minimum of Algol.
10	3:00 a.m.	Mercury farthest west of sun.
	2:00 p.m.	Moon nearest; distance 226,900 miles.
11	9:14 p.m.	Minimum of Algol.
12	12:00 p.m.	Venus at greatest brilliance.
13	9:23 a.m.	Full moon.
14	6:03 p.m.	Minimum of Algol.
17	11:41 p.m.	Moon passes Mars.
18	9:42 a.m.	Moon passes Saturn.
20	9:42 p.m.	Moon in last quarter.
22	9:00 a.m.	Moon farthest; distance 251,300 miles.
23	3:01 a.m.	Moon passes Jupiter (Occultation seen from northeastern part of U. S.).
24	10:50 p.m.	Moon passes Venus.
28	9:59 p.m.	New moon.
29	2:07 a.m.	Minimum of Algol.
31	10:56 p.m.	Minimum of Algol.

* Algol is a well-known variable star which can be located on the maps, in the constellation of Perseus. These are the times of minimum brightness which occur in night-time hours.

Subtract one hour for CWT, two hours for MWT, and three for PWT.

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PSYCHOLOGY

Tell Public the Truth

Arguments that gruesome battle pictures should be released or suppressed because of effects on the public may both be wrong.

➤ SHOULD combat films be censored, before they are shown to the American public, to cut out the gruesome and heart-tearing pictures of American soldiers falling to the ground, wounded or dead?

In the arguments centered around this question, one important factor appears to have been overlooked. That is, that the American public has a right to the truth, be it ever so painful to face. In a democracy, the hardships and the pain belong to the people just as truly as the fruits of victory.

Psychologists would agree, certainly, that pictures of killed and wounded American soldiers would be terribly depressing to the American people. Every mother of a soldier would see in the pathetic figures, the lifeless hands of the American fallen, the form of her own boy. They will make her weep.

Psychologists would also agree with those who argue that release of these pictures would tend to make the audience more willing to pay taxes, to buy bonds, to give blood.

But those who have made a study of the psychology of the American people are likely to question whether the decision to release or suppress the pictures should be made on either of these grounds.

In a democracy, the war is a war of all the people, not just of those in uniform who have reached the combat areas. Do they not have the right to know what war is like? And isn't a false idea given by pictures of a landing, an advance, a victory from which have been censored all views of wounded and killed? Is it intended that the people should believe that victories are to be won without cost?

Of course, they won't believe any such nonsense. But they are very likely to feel that the censor, in cutting part of the truth from the films because the truth is unpleasant, is depriving them of knowledge they need for an intelligent understanding of what is going on. They may feel that they are being treated as children, to be shielded from "the facts of life." They may even feel, unfortunately, that their leaders do not trust them, that important facts are being withheld, that affairs are much worse than has been reported.

Later release of the pictures for the purpose of stimulating interest in a war bond drive or to cure the alleged "complacency" of the people would not necessarily erase the effect of the previous suppression. In fact, it might very well add to it.

In other words, the people are likely to feel that the truth should be told just because it is the truth, not for the effect it will have on the public.

Another aspect of the situation that has not been discussed is the effect on soldiers of the showing of combat pictures minus the American killed and wounded.

Evidence collected by psychologists indicates that such censorship might deprive the soldier who is later to go into combat of a mental preparation for the shock. Nothing is so frightening to the human mind as a sudden meeting with the unexpected. Before men go into combat, it is a distinct advantage for them to be prepared for what they will see and hear. One of the hardest things for a soldier to bear is to see his friends —other American soldiers—wounded and crying for help. He wants to stop and give first aid even though he can be of greatest help to the wounded man only by pushing on and repelling the enemy. Complete battle films showing the wounded and what is done to pro-