Lighted Start Sequence

A proposal to improve the sailboat racing start sequence using lights. This will solve a problem prevalent in our sailing community: the human element in flag raising and lowering.

The worldwide governing body of sailboat racing prescribes a sequence of flags and horns that competitors use to determine their start time. Competitors set stopwatches or other devices based up these flags and to position themselves to cross a start line at exactly the designated time. It is crucial for competitors to start precisely because a: an early start means disqualification, and b: a late start hinders their ability to compete in the race. Skilled sailors regularly start within one second of their start time.

The start sequences are run by persons called the Race Committee. Often, these individuals are volunteers who rarely perform these duties. Clubs with dedicated Race Officers also have volunteers to address common tasks such as raising flags. Those volunteers do not always understand the importance of split-second accuracy when raising or lowering flags. Boat movements can throw the person off. Equipment setup can slow flag raising or lowering. Flag timing and technique can vary from person to person, or club to club. The spectacle of being surrounded by sailboats often distracts even skilled officers.

The envisioned sequence will only replace those aspects of the sequence which require flag changes at specific moments in time. In the case of the RRS 26 sequence, this would be the Warning, Prepatory, One-minute, and Start signals. In those cases, two flags are raised or lowered at specific times, and can be replaced with automated lights. Some other flags (OCS, 1st Substitute, etc) can be handled as they are now. Some flags affiliated with timing (Class & Penalties) can be removed from timing concerns easily.

In summary: Skilled sailors can time their start within one second. Gps technology makes accurate starts possible for additional skill levels. Race Committees should be at least as accurate as their sailors. By automating all timed-aspects of the start sequence, sailboat racing will become more fair for everyone, and give the Race Committee the time to focus on more important tasks.

Proposed Rule Book Changes

The following are works in progress for a lighted start sequence. All diagrams are based upon US Sailing and World Sailing rule 26.

1. Lighted Start Sequence (RRS26)

Minutes before starting signal	Flag Signal	Light Signal	Sound Signal	Means
(any)	Class Flag P, I, Z, Z with I, U, or black flag			Defines class and penalties
5		Top Light On	One	Warning Signal
4		Bottom Light On	One	Preparatory Signal
1		Top Light Off	One Long	One-Minute
0		Bottom Light Off	One	Starting Signal

2. Lighted Start Sequence (RRS26, rolling)

Minutes before starting signal	Flag Signal	Light Signal	Sound Signal	Means
(any)	Class Flags, sequentially ordered. * P, I, Z, Z with I, U, or black flag			Defines class order and penalties
5		Top Light On	One	Warning Signal
4		Bottom Light On	One	Preparatory Signal
1		TopLight Off	One Long	One-Minute
0	Class flag removed *	Bottom Light Off	One	Starting Signal

* Class and penalty flags for started classes shall be removed prior to the Preparatory signal for subsequent classes.

The warning signal for each succeeding class shall be made with or after the starting signal of the preceding class.

Supplementary Diagrams

Lighted Start Sequence (Single Sequence)

RRS26

Attention Signal

R/C On Station, 5-honks

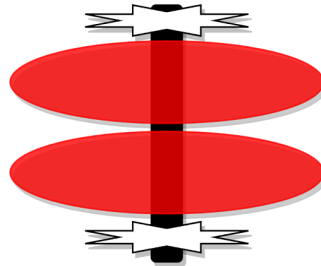Two small blinking white lights
(optional)

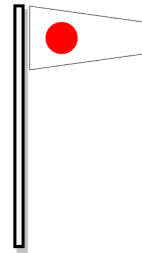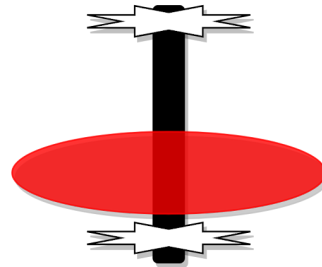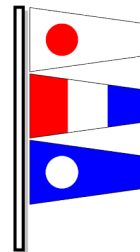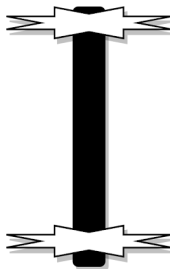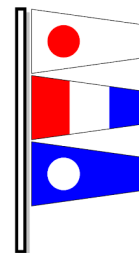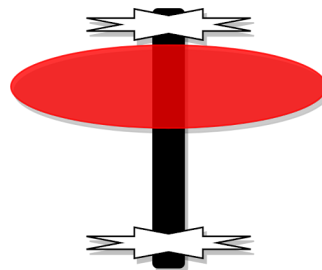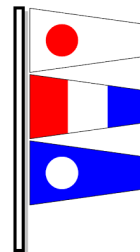Class Flags for the start
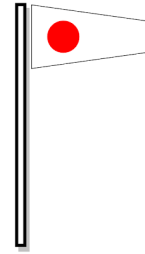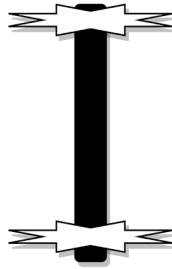
05:00 Warning Signal
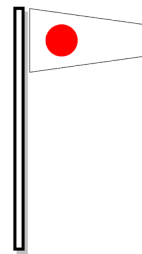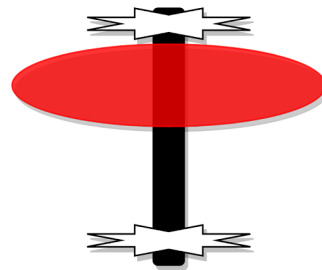
Light #1 ON

04:00 Prepatory Signal
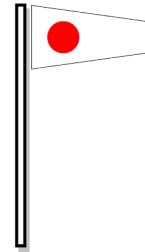
Light #2 ON

01:00 One-Minute Signal

Light #1 OFF

00:00 Start Signal

Light #2 OFF

Class flag removed prior to next
Prepatory signal

Lighted Start Sequence (Rolling)

RRS26

Attention Signal

R/C On Station, 5-honks

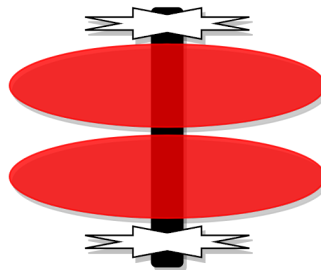Two small blinking white lights (optional)

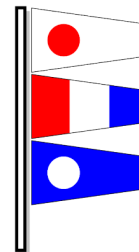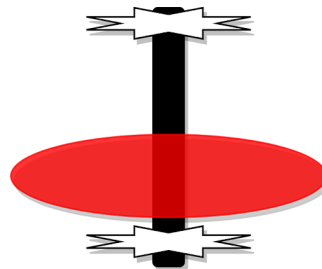Class Flags for the start

05:00 Warning Signal

Light #1 ON

04:00 Prepatory Signal

Light #2 ON

01:00 One-Minute Signal

Light #1 OFF

00:00 Start Signal
05:00 Warning Signal

Light #2 OFF

Light #1 ON

Class flag removed prior to next Prepatory signal