

Classical Spark #2: Calculating OES for Your Station

--Craig Curtis

Like NPR's Spark promotion project, Classical Spark recommends running 100 promos a week to reinforce your station's branding and benefits.

NPR originally came up with that recommendation for three simple reasons:

- 1) 100 is a nice round memorable number
- 2) 100 spots per week is a little less than one spot per hour
- 3) 100 is close to the typical "OES" number for most public radio stations

OES is short of Optimal Effective Schedule. It's a scheduling strategy and formula used to **calculate the number of weekly plays it takes for a message to reach an average listener three times.** Why three times? Memory theory and many advertising studies have shown that a message must be heard at least three times before the message begins to register firmly with the listener. A schedule that hits the average listener 3+ times per week is said to be a schedule with "effective reach."

OES was originally designed as an advertising tool, but it works equally well for scheduling promos, membership pitches, or any other message you want to convey to your audience. Music programmers use OES to figure how often hits or high rotation songs should be played, and though they use standard OES math, when applied to music the number produced is called the "**spin rate.**" (For you kids, that's "spin" as in what we used to do with records.) News stations also use OES to determine how many times to play an individual news report.

OES has long proven to be a durable technique for reaching your audience with a message or piece of content a set number of times within a set period.

(History break: The idea of OES and the formula was developed by advertising executive Steve Marx in the late 80s as part of a research project commissioned by the National Association of Broadcasters and the Radio Advertising Bureau. Marx and Pierre Bouvard, now an executive with Cumulus Media, co-authored an excellent book on OES, which is unfortunately out of print and very expensive if you can even find it. Sad to report that Marx died last spring of a fast-moving cancer.)

For Classical Spark – i.e. for effectively communicating your station’s branding and benefits – we suggest scheduling 100 spots, promos or mentions per week. If you’re sufficiently curious about **calculating your own station’s OES magic number** and can do elementary school math, **here is the formula:**

$$\text{Cume/AQH} \times 3.29 = \text{OES}$$

Cume divided by AQH produces your “turnover factor,” **which is then multiplied by 3.29, which represents the “3+ effective reach” multiplier.** Some users of this idea have suggested other multipliers, ranging as high as 3.9, but the original 3.29 multiplier is still most often used by ad agencies and radio stations.

Let’s imagine a station with a weekly cume of 225,000 and an AQH of 7,500. Here’s what the math looks like:

$$225,000/7,500 = 30 \text{ (turnover factor)}$$

$$30 \times 3.29 = 98.7 \text{ (recommended OES spots/week)}$$

Once you grasp the basic idea behind the formula, you can use it in several ways. You can adjust the number of messages you want heard per week by simply changing the multiplier. And you can calculate how to reach specific parts of your audience.

A good public radio adaptation of the formula would be in fundraising. If you assume your station’s membership and *potential* membership comes from your P1/Core audience, and you want to reach them with a fundraising message, you don’t need to do a full OES run aimed at your total audience. In this case, divide your P1/Core AQH into your Cume before multiplying that by 3.29. That will probably produce a number about 1/3 your overall OES, which shows how much more efficient we are at reaching P1/Core listeners than the full audience.

Bear in mind that OES is *not* an official Nielsen (nee Arbitron) data point. It is an estimate, but it’s a valuable one with an excellent track record in decades of use by advertisers and radio and TV broadcasters.

[The PRI infosite](#) has a helpful guide on managing promotion inventory, which includes a section on OES. [Greater Public](#) has some information on using OES in fundraising, available to Greater Public member stations.

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