Questions, Answers, and Some Cautionary Updates Regarding the 3.5% Rule

Erica Chenoweth
Carr Center
Discussion Paper
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Erica Chenoweth
Berthold Beitz Professor in Human Rights and International Affairs at Harvard Kennedy School, and Susan S. and Kenneth L. Wallach Professor at the Radcliffe Institute for Advanced Study
Harvard University
April 2020

Acknowledgments
I thank Marshall Ganz, Zoe Marks, and Mathias Risse for their constructive comments on this draft.
Summary

The “3.5% rule” refers to the claim that no government has withstood a challenge of 3.5% of their population mobilized against it during a peak event. In this brief paper, I address some of the common questions I have received about the 3.5% rule, as well as several updates from more recent work on this topic.

Four key takeaways are as follows:

- The 3.5% figure is a descriptive statistic based on a sample of historical movements. It is not necessarily a prescriptive one, and no one can see the future. Trying to achieve the threshold without building a broader public constituency does not guarantee success in the future.

- The 3.5% participation metric may be useful as a rule of thumb in most cases; however, other factors—momentum, organization, strategic leadership, and sustainability—are likely as important as large-scale participation in achieving movement success and are often precursors to achieving 3.5% participation.

- New research suggests that one nonviolent movement, Bahrain in 2011-2014, appears to have decisively failed despite achieving over 6% popular participation at its peak. This suggests that there has been at least one exception to the 3.5% rule, and that the rule is a tendency, rather than a law.

- Large peak participation size is associated with movement success. However, most mass nonviolent movements that have succeeded have done so even without achieving 3.5% popular participation.

Background

The “3.5% rule” refers to the claim that no government has withstood a challenge of 3.5% of their population mobilized against it during a peak event.1 This rule builds on an insight that political scientist Mark Lichbach developed in his 1995 book The Rebel’s Dilemma. In it, he speculates that (a) no government could withstand a challenge of 5% of the population; and (b) no rebellion could hope to mobilize more than 5% of the population anyway because of popular incentives to free ride on more risk-acceptant revolutionaries. In 2013, I explored whether the 5% rule held in a large population of revolutionary movements. To do this, I used the Nonviolent and Violent Campaigns and Outcomes (NAVCO) 1.1 dataset, which documents 323 nonviolent and violent mass mobilizations from 1900-2006 that were seeking to topple national governments or achieve territorial self-determination.2 The dataset includes estimates of the number of people who participated in those campaigns during their largest (“peak”) events, among other attributes. To create an indicator documenting the percentage of popular participation in each campaign, I divided the number of observed participants by the population of the country during the final year of the campaign. All movements that had at least 3.5% peak popular participation had succeeded. Moreover, all campaigns surpassing this threshold were primarily nonviolent.3

In this brief article, I address some of the common questions I have received about the 3.5% rule, as well as several updates from more recent work on this topic. Over the past few years, I have received an increasing number of questions about the 3.5% rule — how to interpret it, how to find the evidence backing up the claim, and how the rule can or should be applied in contemporary contexts. I have also completed new research that helps to shed light on whether and how the 3.5% rule holds in a broader set of postwar cases, including the Arab Spring and beyond.

To make this paper as accessible as possible, I have written this paper as Q&A and engaged with most of the questions I have received about the 3.5% rule.


2 These data were collected to support the research reported in Erica Chenoweth and Maria J. Stephan. 2011. Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict. New York: Columbia University Press.

Why would it only take a small minority of the population engaging in active resistance to create change?

There are three major explanations:

1. **Disruption.** Mark Lichbach speculates that few governments could withstand a challenge from an activated minority because of how disruptive this would be to the status quo.4 Large-scale mobilization can tank an economy, shut down cities and neighborhoods, and put massive political pressure on leaders to resolve a crisis. 3.5% may sound like a small number, but it's a large absolute number of participants, even in small countries. In the U.S. today, 3.5% would be well over 11 million people. To put this in recent context, the largest single-day demonstration in U.S. history was the Women’s March in January 2017. That event drew over 4 million people—between 1 and 1.6% of the U.S. population—into active participation across hundreds of locations.5 Double or triple the scale of the 2017 Women’s March’s participation, and that would approach the 3.5% threshold.

2. **Public sympathy and support.** If a movement can mobilize 3.5% of the population to participate, there are likely much larger proportions of the population that sympathize with and support the movement. Over time, such sympathy and support can translate into growing political pressure for the incumbent to leave office—even in autocracies—as has happened in scores of cases in the postwar period.

3. **Defections.** A key pathway to success for nonviolent movements is the ability to create defections on the government side.6 This means that economic, business, political, cultural, and media elites stop supporting the status quo; they may even join the movement. This tends to happen most often when a movement has built a critical mass, which generates a sense of inevitability about their success. Elites who don’t want to be left behind begin to shift their public loyalties, and this can lead to a cascade of defections as others follow.7

Does the rule imply that if a movement just gets 3.5% of the population into the streets, it will always win?

Not necessarily; here are a few reasons why.

- **The figure relies only on peak participation, not cumulative participation.** The 3.5% rule was calculated by estimating participation at a peak event (usually either mass demonstrations in the case of nonviolent campaigns, or the maximum total fighters in the case of armed campaigns). It does not account for the way that participation might build over time, the cumulative effects of such participation and disruption, and the ways in which momentum might be a better predictor of success than raw numbers themselves because of how others in society react to sustainable, large-scale, and expanding movement actions.

For example, my more recent work with Margherita Belgioioso examines momentum dynamics specifically. We look at the interaction between the velocity of events (i.e. the number of protest events concentrated in time), as well as mass (the number of people protesting nationwide on any given day).8 By multiplying them together, we get a pretty good predictor of whether the incumbent national leader leaves office on a given day, regardless of whether the mobilization hit the 3.5% threshold (few movements do; more on this below). But building and maintaining this momentum requires organizational capacity, especially if the movement wants to affect politics and the public narrative after they achieve this discrete outcome. And again, this finding applies to conditions where the incumbent left office in response to mass mobilization. (I have not yet researched whether the finding applies to lower level discrete policy reforms or other kinds of social outcomes.)

- **The rule does not speak to leadership, strategic imagination, organizational capacity, or sustainability.** Strategic leadership is required to organize a constituency, motivate their engagement, design campaigns adaptively,
innovate tactics creatively, mobilize allies, respond to adversaries, sustain long-term organizational capacity, and devise alternatives to existing systems. A movement’s ability to do this is probably more important than a movement’s ability to quickly mobilize a large number of people, especially because today’s digital organizing environment makes it easier to coordinate mass protests but not necessarily to sustain them.\(^9\)

The rule counts peak participation but doesn’t tell us about movement popularity or support. The historical record suggests that large-scale participation is usually the tip of the iceberg, and there is usually much broader public support for the movement than the people who are active in the streets. But unlike active participation in a mass movement, there is no way to calculate how much popular support is needed for a movement to succeed without comprehensive opinion polling. The ability to get 3.5% of a population to mobilize may indeed be a powerful indicator that the movement’s strategy appeals to a very large proportion of the population and probably has majority public support. In most cases, large-scale peak participation was achieved through this popular support and legitimacy. This is why neglecting a broader public constituency and just bringing large numbers of people to the streets might not be an effective strategy. And organizing only to achieve mass participation benchmarks may create a loud but wildly unpopular minority, with little chance of achieving a sustainable victory.

- **The rule is derived from—and therefore applies to—only a specific kind of campaign.** The movements on which it was based were maximalist ones, i.e. overthrowing a government or achieving territorial independence.\(^10\) They were not reformist in nature, and they had discrete political outcomes they were trying to achieve that culminated in the peak mobilization that I counted. Because of this, we cannot necessarily extrapolate these findings to other kinds of reform or resistance movements that don’t have the same kinds of goals as those in the NAVCO dataset.

- **It’s a rule, not a law.** I recommend viewing the rule as a “rule of thumb” rather than as an iron law. A rule of thumb is a more accurate way to interpret this statistic in a world where patterns of collective human behavior are highly contingent and subject to change. Rules are scientific principles that can be used as tools, measurements, or guidelines. Laws are scientific facts. That said, the term “rule” should not imply necessity and sufficiency; it should allow for probability or contingency.\(^11\) Viewing it as a law (rather than a rule of thumb or tendency, for instance) would imply that all that is needed is 3.5% peak participation and a campaign will always win. It also implies that if movements don’t achieve that threshold, they cannot succeed. Neither of these implications is necessarily true. Most nonviolent campaigns have succeeded with fewer than 3.5% peak popular participation. Among all maximalist nonviolent campaigns that did succeed, 83% did so without crossing the 3.5% threshold. Moreover, there do appear to be several exceptions to the rule (see below). Rules are made to be broken, and they allow for some exceptions.

- **At least until 2013, the rule was not part of a conscious organizing strategy.** The 3.5% rule is a descriptive finding but not necessarily a prescriptive one. The rule refers to a historical tendency that obtained when no one was conscious of it yet. No one knows whether the rule will hold if people consciously try to mobilize to achieve the threshold.

**Are there exceptions to the 3.5% rule?**

New research suggests that there are.

In November 2019, Christopher Shay and I published NAVCO 1.2, a more complete version of the dataset that extends from 1945 through 2014. You can find it here: http://bit.ly/3b6TZun or browse it through an interactive map here: https://navcomap.wcfia.harvard.edu/navco-map.

From these new data, you will see that the 3.5% rule still holds for the 1945-2006 period when all missing data is updated, with one exception: a 1962 revolt in Brunei, during which 4,000 people were have reported to participate in an armed uprising.

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10. See the Technical Appendix for more detail.

11. Thanks to Marshall Ganz for this particular insight.
If a movement can mobilize 3.5% of the population to participate, there are likely much larger proportions of the population that sympathize with and support the movement.
group that launched a failed uprising. This constitutes 4% of Brunei’s total population. This case was mistakenly excluded from the first iteration of NAVCO and corrected in NAVCO 1.2.

Since 2006, there appears to be an additional case that bucks the 3.5% rule: the uprising against King Hamad in Bahrain in 2011-2014. There were purportedly 100,000 people participating in a major demonstration there, constituting over 6% of the population. That campaign was listed as ongoing in our dataset through 2014, although dissent has largely subsided there.

**What’s going on in Bahrain and Brunei?**

Brunei is a very small monarchy with fewer than 90,000 people at the time, so it is not a particularly representative case. This campaign involved the North Kalimantan Liberation Army attempting to overthrow a colonial-backed government (in this case, a sultanate under the protection of the UK) to deter a move to join Brunei with Malaysia. The revolt lasted only 10 days and was swiftly put down. Brunei’s military stayed loyal to the regime during the assault, despite reprisals from the rebels. And the sultan received reinforcements from the British government, which diverted regional patrols to help shore up Brunei’s stability. Although the sultan’s hold on power survived the revolt (meaning it was not coded as “successful” in our dataset), in 1963 he decided that Brunei would not join Malaysia, delivering one of the uprising’s key goals.

A couple of things may be going on in Bahrain. In substantive terms, the opposition was up against a formidable foe, a monarchy again with external support. Similar to Brunei, Bahrain is a small island kingdom where a minority sect controls the government with the backing of a powerful regional ally—Saudi Arabia—and steady support from the United States. In responding to the demonstrations, which happened amidst the Arab Spring wave of uprisings, Bahrain relied on outside forces, including Saudi troops and private security forces, to reduce the possibility of security force defections. It appears that during the Bahrain Spring, large-scale participation was relatively short-lived, and an initial burst of activity certainly tapered off quickly after major crackdowns.

**Do these exceptions mean the 3.5% rule no longer applies?**

The rule might be somewhat qualified by these two cases. The 3.5% rule may not apply in Brunei and Bahrain or countries like them—small monarchies with access to overwhelming foreign military reinforcement. But these are rare and unique national profiles, and—for now—the rule appears to persist in all other cases.

Given that mass participation was quite short-lived in both cases, it may also be that the 3.5% threshold fails to capture the degree to which large-scale participation needs to be sustained over the longer term for the rule to apply—a possibility I discuss above as “momentum”.

**How many movements have succeeded with less than 3.5% peak popular participation?**

Campaigns with at least 3.5% popular participation at their peak were far likelier to succeed than campaigns with fewer participants. Overall, it remains clear that campaigns with large-scale participation have much greater likelihoods of success. However, some campaigns succeeded with small proportions of popular participation as well. See the descriptive table below.

Again, people referring to the 3.5% statistic should interpret it as a rule of thumb rather than as a strict rule.

<table>
<thead>
<tr>
<th>Peak Popular Participation (%)</th>
<th>Number of Observations</th>
<th>Success Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>At least 3.5 %</td>
<td>18</td>
<td>88.89 %</td>
</tr>
<tr>
<td>1 % - 3.5 %</td>
<td>41</td>
<td>60.98 %</td>
</tr>
<tr>
<td>0.25 % - 1 %</td>
<td>92</td>
<td>45.65 %</td>
</tr>
<tr>
<td>0.06 % - 0.25 %</td>
<td>95</td>
<td>45.25 %</td>
</tr>
<tr>
<td>0.015 % - 0.06 %</td>
<td>66</td>
<td>24.24 %</td>
</tr>
<tr>
<td>0.0035 % - 0.015 %</td>
<td>44</td>
<td>9.09 %</td>
</tr>
<tr>
<td>less than 0.0035 %</td>
<td>24</td>
<td>4.17 %</td>
</tr>
<tr>
<td>missing data</td>
<td>9</td>
<td>33.33 %</td>
</tr>
</tbody>
</table>

12 Chenoweth & Belgioioso 2019.
Which maximalist nonviolent campaigns have achieved 3.5% participation?

Only a few. In NAVCO 1.2, 17 of 169 nonviolent campaigns surpassed the 3.5% threshold—that’s 10% of all maximalist nonviolent uprisings that erupted between 1945 and 2013. The chart below shows the 32 nonviolent and violent campaigns that mobilized at least 2% of the population, along with their outcomes. As the chart shows, 24 of the largest 32 campaigns achieved outright success (75%), and 27 out of 32 (84%) achieved either major concessions or full success.

Maximalist Campaigns with >2% Popular Participation during Peak Mobilization, 1945-2014 (n=32)

Does the rule apply to cases other than maximalist campaigns (e.g., to global campaigns for climate action, campaigns to protect or expand rights, or smaller-scale campaigns against local governments, corporations, or educational institutions)?

No one knows. The 3.5% rule was derived from a very specific category of campaigns—those seeking the removal of an incumbent national leader or territorial independence—where the goal was clear and concrete, albeit very difficult to achieve. It may be that other types of campaigns can succeed with a similar threshold of popular participation at the relevant scale, but reliable data cataloguing participation in all kinds of movements doesn’t yet exist.

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13 The proportion is much smaller if we examine both nonviolent and violent campaigns. One violent campaign in Brunei brings the total number of campaigns surpassing 3.5% peak popular participation to 18. That’s about 4.6% of the total of 389 maximalist campaigns from 1945-2013.
What happens after these campaigns succeed?

Lots of people have taken up this question, including me. Most research has found that mass nonviolent uprisings often generate major democratic breakthroughs, whereas successful armed rebellions often usher in periods of autocratic rule and political instability. There is also evidence to suggest that the longer-lasting nonviolent revolutions tend to create more durable democracies in the aftermath. The primary reason for this is that longer-lasting nonviolent uprisings have to develop organizational capacity and infrastructures and experiment with various forms of democratic governance, which translates into higher-quality democratic institution-building in the long term. Other scholars have looked at a wider variety of outcomes, such as life expectancy, economic justice, human rights practices, and civil peace and have found similarly that nonviolent resistance campaigns tend to usher in more favorable outcomes than armed struggle across the board. However, it is not yet clear what role large-scale participation may play in shaping these outcomes. Large participation size might be a key factor in the success of a campaign, but it also presents numerous challenges in sorting out the path forward. Some argue that the larger the movement, the more difficult it can be to achieve a stable political settlement that satisfies all of the potential constituents. In other words, there are some common democratic tendencies in countries emerging from mass nonviolent uprisings, but no guarantees.

Are there any good discussions of the 3.5% rule in the media that deal with these questions?

David Robson at the BBC does a good job of summarizing the 3.5% rule. Darian Woods also has a good discussion of it on his podcast episode on Planet Money. Keep in mind that both of these pieces were published before the NAVCO 1.2 dataset was complete (i.e. before the cases of Bahrain and Brunei were known).

Where can I find the 3.5% rule in a peer-reviewed publication?

To cite the rule, the best source would be this paper:


I had not yet uncovered the 3.5% claim when Maria Stephan and I wrote our 2011 book Why Civil Resistance Works. However, the NAVCO 1.1 data that back up the number were the same data we used for that book, and those data have been peer-reviewed, publicly released, and available for replication at my website. You can find the NAVCO 1.1 data at the Harvard Dataverse.


18 Chenoweth & Stephan 2011.


22 Chenoweth & Stephan 2011.

23 https://dataverse.harvard.edu/
I have further questions about the 3.5% rule and nonviolent resistance in general. Where can I get more information about it?


Where can I keep track of the updated data?

All of the NAVCO data are posted and updated at Harvard’s Dataverse.

The largest single-day demonstration in U.S. history was the Women’s March in January 2017. The event drew over 4 million people—between 1 and 1.6% of the U.S. population, into active participation across hundreds of locations.

Appendix: Further Technical Details

This appendix dives deeper into some additional technical issues, as well as some historical background as to the origins of the 3.5% rule.

Does the 3.5% rule apply to both governmental and territorial campaigns?

Territorial campaigns are complicated because of the contested nature of the territory and the question of which countries’ populations should be the reference point. My judgment has been that for territorial conflicts, especially self-determination campaigns where the populations are directly proximate to one another, estimating the participation rate vis-à-vis the local movement makes less sense than considering the participation rate vis-à-vis the target. In independence/autonomy campaigns in Catalonia, Hong Kong, and Tibet, for instance, there is little logic to measuring the campaign’s size vis-à-vis the local population when it is the dominating state’s politics in Spain and China that the movements are trying to affect.

East Timor is another case that is more appropriately considered relative to Indonesia’s population, since East Timor was trying to separate from a country that annexed it as sovereign. If you were referring only to the island’s population, it would probably have crossed the 3.5% threshold (and although FREITILIN failed in the 1970s, the independence movement ultimately succeeded—primarily by forging relationships, transnational solidarity networks, and leverage with mainland Indonesians). But because the reference target country is Indonesia, neither campaign approached the threshold.

Needless to say, the 3.5% rule is cleaner and much easier to conceptualize as applied to governmental conflict as opposed to territorial conflicts. I usually refer to it in the latter context, since the territorial contexts can be both tricky and highly politicized. But it is important to note that if people make different judgments than the ones I made here, they might find much higher participation rates regarding territorial conflicts than the ones I report.

Are there any borderline cases where you had to make hard judgement calls?

Panama’s Civic Crusade is a bit of a puzzle. Some sources claim that “up to 750,000 people” participated in the Civic Crusade campaign to remove Noriega from 1987-1989—presumably because there were reports of successful strikes taking place during that time in which large numbers of people were reported to have participated. However, in news reports, I can find triangulated reports of up to 20,000 people visibly demonstrating at any given point—far lower than the 750,000 figure contained in one observer’s account. Therefore, I tend to rely on the lower figure that has eyewitness validity. At any rate, although many participants in the Civic Crusade saw themselves as winning against Noriega, the United States intervened and deposed him in late 1989. Although this campaign is marked as a failure, mass mobilization did lead to the conditions provoking US intervention and, ultimately, the ouster of the leader.

How did you estimate peak participation?

Peak participation counts the number of people at the largest reported event and/or skirmish/battle during the campaign, not the cumulative number of participants over the course of the campaign. These data were collected largely using news reports regarding key campaign events. When estimates of peak participation size vary, I chose the more conservative estimate.

How did you estimate population size?

I drew these figures from Penn World Tables (PWT), Banks’ Cross-National Times Series Dataset (CNTS) for older cases, and occasionally supplemented these figures with case-specific historical records and archival material.

How reliable are these estimates?

I’ve been working with these data for over a decade now, and I’m pretty confident in them at this stage.

In the original NAVCO 1.1 dataset, which I collected in collaboration with Maria Stephan between 2006-2008, there were a number of missing values for both the population size figures and the peak participation figures. This is a relic of lots of missing data at the time from the CNTS and PWT, as well as a great deal of missingness more generally during the pre-war and colonial period. During those times, reliable records on both population statistics and anti-colonial rebellions were hard to come by in part because of the powerholders’ interest in suppressing information on dissident numbers, as well as their enhanced capacity to do so compared with regimes in the postwar period. Among those with missing values in the original NAVCO 1.1 dataset, the “close calls” are Burma in 1988, East Germany in 1953, and Chinese resistance to the Japanese invasion through 1945, all of which are classified as “failures” despite pretty large peak participation. However, none reached the 3.5% threshold based on various estimates of those countries’ population sizes at the time of the campaigns. I still do not have peak participation estimates for some cases, but most of the remaining missing participation rates are missing because they were not very substantial in size (and have required years of further digging to try to
estimate). NAVCO 1.2, which Christopher Shay and I released in November 2019, has fewer missing values.

However, NAVCO may include the occasional coding error, as is typical with large-scale data collection projects in their first iteration. If you find a coding error, please let me know so I can correct them and update the analysis accordingly. You can report an error through the Harvard Dataverse page.

Is there a relationship between the 3.5% rule and Figure 2.1 of your co-authored book, Why Civil Resistance Works?

No, that figure is unrelated to the 3.5% rule claim. Figure 2.1 plots the predicted probability yielded for each of the campaigns in the sample based on a multivariate regression model. That means the graph should be interpreted as suggestive of the impact of participation on the probability of success rather than a depiction of the observed outcomes. Technically speaking, the figure is plotting y-hat/predicted values of the success probability as a function of the observed logged participation rate, controlling for other factors. You can view all of the commands for both the underlying model and the commands used to produce the graph at the replication file on my website’s Replication Archive.

Where did the rule come from?

Here, I’ll elaborate a bit on the background above. In researching historical episodes of mass mobilization for the book Why Civil Resistance Works25 (published in 2011 with Maria Stephan), I developed a dataset—the Nonviolent and Violent Campaigns and Outcomes (NAVCO) dataset—that covered worldwide instances of violent and nonviolent campaigns with maximalist goals from 1900-2006. Maximalist campaigns are those that aim to overthrow incumbent national leaders, or create independent territory. That dataset featured 323 such campaigns and catalogued various attributes of them, including estimates of the number of people who participated in those campaigns during their largest (“peak”) events. It also featured data on different characteristics of the countries in which the movements took place, such as population size, government capacity, demography, wealth, and level of democracy.

In 2013, I was attending a workshop with a number of activists, and several of them asked me how many people it takes to win a movement. Other scholars interested in revolutions and mass protest had developed some hunches about this. Mark Lichbach, for example, had mentioned a “5% rule” in his 1995 book The Rebel’s Dilemma.26 For him, the rule referred to the idea that (a) no government could withstand a challenge of 5% of the population; and (b) no rebellion could hope to mobilize more than 5% of the population anyway because of the incentives for people to engage in free-riding (i.e. to avoid risky participation, but still benefit from the costly actions other people—the 5%—would be willing to undertake). This formulation appears in a footnote, and Lichbach does not elaborate much on this insight in the book. I was inspired and intrigued by his work, because it suggested the number required for achieving critical mass in movements might be more modest than most people would expect. And it was the closest anyone had come to answering the activists’ question about critical mass.

To generate my own figure, I turned to the NAVCO 1.1 dataset and established a new indicator for each campaign documenting its percentage of popular participation. (I simply divided the number of observed participants by the population of the country during the final year of the campaign.)

From there, I observed that the movements that showed at least 3.5% popular participation had all succeeded. Moreover, all of the campaigns I’d documented as mobilizing at least 3.5% of popular participation were coded as primarily nonviolent. I shared this information with the activists at the workshop, and they encouraged me to add this basic descriptive statistic to my workshop materials when talking about participation and nonviolent resistance. Taking their feedback, I first publicly shared this figure at a TEDx talk in Boulder, Colorado in September 2013. The video from that lecture—and the blog post in which I provide the full annotated transcript of the video—has been widely circulated since.27

Where can I find the underlying data for this claim?

Once again, you can get the data that support the 3.5% rule claim here: http://bit.ly/2U3IQVs. This is the original version I used to generate the statistic I report in my TEDx talk.

In November 2019, Christopher Shay and I published NAVCO 1.2, which adds many more cases and extends coverage from 1945 through 2014. It is posted here: http://bit.ly/3b6TZun, or you can browse the data here: https://navcomap.wcfia.harvard.edu/navco-map.

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