

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

RECEIVED

AUG 21 2001

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

_____)
In the Matter of)
)
XM RADIO, INC.)
)
Request for Special Temporary Authority)
To Operate Terrestrial Repeaters in the)
Satellite Digital Audio Radio Service)
)
SIRIUS SATELLITE RADIO, INC.)
)
Request for Special Temporary Authority)
To Operate Terrestrial Repeaters in the)
Satellite Digital Audio Radio Service)
_____)

File No. SAT-STA-20010712-00063

File No. SAT-STA-20010724-00064

Received

AUG 23 2001

Satellite Policy Branch
International Bureau

COMMENTS OF AT&T WIRELESS SERVICES, INC.

AT&T Wireless Services, Inc. ("AWS") submits these comments to highlight the substantial defects – both procedural and substantive – that exist in the requests for special temporary authority ("STA") to operate terrestrial repeaters in the satellite Digital Audio Radio Service ("SDARS") filed by XM Radio, Inc.¹ and Sirius Satellite Radio, Inc.² In view of the fact that AWS is currently operating a facilities-based, fixed wireless networks providing lifeline and broadband Internet access services using adjacent spectrum licensed in the Wireless Communications Service ("WCS") that would be affected by the proposed SDARS operations, these issues must be addressed prior to any grant of authority, whether by STA or otherwise.

¹ Letter from Lon C. Levin to Magalie Roman Salas, dated July 12, 2001 ("XM Request").

² Letter from Robert D. Briskman to Magalie Roman Salas, dated July 24, 2001 ("Sirius Request").

Specifically, neither applicant has demonstrated the “extraordinary circumstances” and “serious prejudice to the public interest” that must be shown in order to justify the grant of an STA. Neither applicant has provided complete information for all transmitters it seeks to operate pursuant to the STA. And most importantly, now that XM and Sirius have finally come forward with operating information on their high power repeater networks, AWS can demonstrate with certainty that some of those repeaters will cause harmful interference to AWS’ current and near-term provision of lifeline services. In addition, AWS submits that the STA requests must be viewed in the larger context of the pending SDARS service rules proceeding³ concerning the precise operations at issue here and the applicants’ established history of abuse of the Commission’s experimental license program. *If* the Commission is provided with information sufficient for it to conclude that the applicants have met their burden of proof and are otherwise qualified to receive an STA, AWS believes that any STA issued in these proceedings must be appropriately conditioned in order to safeguard WCS operations.

A. The Current STA Requests Satisfy None of the Standards Warranting Grant of an STA.

An STA is an extraordinary authorization, not something issued routinely or in the usual course by the Commission. Such an authorization is a departure from standard requirements and procedures and must be strictly justified. The departure is even greater than usual here as both XM and Sirius seek authority not for a discrete transmitter at a single location or in a single market, but rather for hundreds of transmitters located across

³ *Establishment of Rules and Policies for the Satellite Digital Audio Radio Service in the 2310-2360 MHz Band*, IB Docket No. 95-91.

the country. AWS is aware of no case in which the Commission has ever before granted an STA for a nationwide network of terrestrial transmitters.

Section 25.120 of the Commission's rules sets forth the showing that must be made by applicants seeking an STA. First, an STA is appropriate "[i]n circumstances requiring immediate or temporary use of facilities," and the request "must contain the full particulars of the proposed operation."⁴ Second, in order to grant an STA, the Commission must find "that there are extraordinary circumstances requiring temporary operations in the public interest and that delay in the institution of these temporary operations would seriously prejudice the public interest."⁵ The rule also specifically makes clear that "[c]onvenience to the applicant, such as marketing considerations of meeting scheduled customer in-service dates, *will not be deemed sufficient for this purpose.*"⁶ The Commission adopted its STA rule as a codification of a staff policy under which an STA request would be denied unless the applicant could demonstrate that "an STA is necessary due to circumstances beyond its control."⁷

XM and Sirius clearly have not made the required showing; in fact, they have failed to satisfy even a single aspect of the established criteria. First and foremost, neither of them has identified any cognizable "extraordinary circumstances" justifying an STA. The only circumstance proffered by the SDARS licensees is their desire to

⁴ 47 C.F.R. § 25.120(a).

⁵ *Id.* at 25.120(b). For example, a traditional use of an STA is where temporary facilities are needed to protect life, health, or safety.

⁶ *Id.* (emphasis added).

⁷ *Amendment of Part 25 of the Commission's Rules and Regulations to Reduce Alien Carrier Interference Between Fixed-Satellites at Reduced Orbital Spacings and to Revise Application Processing Procedures for Satellite Communications Services*, 6 FCC Rcd. 2806, 2810 (1991).

incorporate terrestrial repeaters in their initial roll-out of commercial service.⁸ Yet such marketing considerations are the one type of circumstance that the Commission has explicitly identified as *insufficient* to justify an STA.

The wisdom of this rule is demonstrated in this case, where the only exigency even arguably present was created by XM's unilateral announcement on July 24, 2001 that it will begin offering commercial service in two markets on September 12, 2001.⁹ (Sirius does not even have this patently insufficient exigency to rely upon, as it has announced that it expects to begin offering service in the fourth quarter.¹⁰) Having created a "circumstance," XM now seeks to leverage its voluntary and unilateral announcement of a date for service commencement – made just 12 days after seeking authorization for a terrestrial component it claims is integral to its offering (and one week before that request went on public notice) -- into a basis for Commission action. Unfortunately for XM, Commission rules and precedent wisely foreclose such a strategy.

Moreover, neither XM nor Sirius has provided the *full* particulars of operation because neither of them has provided *any* information on the repeaters operating at power levels below 2 kW for which they seek authorization.¹¹ Although AWS and other WCS licensees have proposed blanket licensing for such standard power repeaters as part of the ongoing SDARS rulemaking, no such blanket authorization has yet been adopted and in this situation one would not be appropriate. Any STA issued to XM and Sirius will

⁸ See XM Request at p. 2; Sirius Request at p. 3.

⁹ See "XM Unveils National Advertising Campaign, National Rollout Plan and Channel Lineup," July 24, 2001 (available www.xmradio.com/newsroom/screen/press_release_2001_07_24.html).

¹⁰ See "Sirius Announces Second Quarter Financial Results and Operational Highlights," August 13, 2001 (available at www.siriusradio.com/nonflash_site/recent.asp).

¹¹ See XM Request at p. 2 n.4; Sirius Request at p. 3 n.9.

obligate them to operate on a non-interference basis. However, unless WCS licensees know exactly where repeaters are operating, they may not be able to identify the source of interference into their systems in a timely manner, if at all. Thus, information on the location and operational characteristics of standard power repeaters must be provided.

In addition, the applicants have failed to indicate exactly what spectrum they intend to use for their repeater operations. We anticipate that XM will use the frequencies from 2336.225 MHz to 2341.285 MHz and that Sirius will use the frequencies from 2324.2 MHz to 2328.3 MHz. However, the applicants should identify on the record the specific frequencies in which their repeaters will operate.

Lastly, neither XM nor Sirius has provided the factual basis for the Commission to make the required finding that failure to use the extraordinary vehicle of an STA would "seriously prejudice" the public interest. This is not a case that implicates potential harm to health, safety, loss of life or property.¹² It does not implicate the provision of lifeline services. Nor even is this a case in which an STA is necessary to ensure continuation of service to existing customers, because neither of the SDARS licensees is currently offering service or has any customers. The applicants have not demonstrated why the public interest -- as opposed to their own marketing plans -- requires the *immediate* provision of an additional form of audio entertainment.

Each of these significant shortcomings must be addressed before the Commission can justify the grant of the requested STAs.

¹² Compare *Comsat Corp.*, 13 FCC Rcd. 319, 322-23 (Int'l Bur. 1998)(denying an STA and contrasting prior cases in which grant was necessary in the aftermath of a natural disaster).

B. The STA Requests Are Inextricably Linked to Serious Substantive Issues Concerning Both the Pending SDARS Rulemaking and Prior Abuse of the Commission's Rules for Experimental Licenses.

As AWS and other WCS licensees have demonstrated in the SDARS proceeding, the blanketing interference resulting from the operation of high power SDARS repeaters will create large exclusion zones within which WCS operators will be effectively precluded from providing service.¹³ Neither XM nor Sirius has seriously contested the blanketing effect of their proposed transmitters.¹⁴ Yet they both continue to insinuate that because they have been deploying and testing their proposed repeater networks for months under an experimental authorization without complaint from WCS operators, there must not be any interference.¹⁵ They make these sweeping statements without ever asserting that they have operated on a continual basis (as opposed to limited operations characteristic of testing) or at full power. In the few weeks since XM and Sirius first revealed the locations of their terrestrial repeaters, AWS has found that the repeaters near its operational WCS stations either are not transmitting any signal at all or are transmitting at a power level dramatically less than the rated power sought in the STA requests. The Commission should not be misled by the SDARS licensees' generalized but unsupported and unquantified assertions.

¹³ See, e.g., Letters from William M. Wiltshire to Magalie Roman Salas, IB Docket No. 95-91, dated April 30 and February 20, 2001.

¹⁴ For example, in a recent *ex parte* filing, XM baldly asserts that its own analysis "indicates that greater use of lower power repeaters often will increase the potential for interference," but nowhere provides the assumptions, calculations, and methodology leading to this conclusion for examination and critique by the Commission and other interested parties. See Letter from Lon C. Levin to Donald Abelson and Thomas Sugrue, IB Docket No. 95-91, dated August 7, 2001, at p. 6. This has been a consistent practice in the SDARS proceeding.

¹⁵ See XM Request at p. 2; Sirius Request at p. 2.

In light of the demonstrated potential for interference, AWS and other WCS licensees have advocated that SDARS terrestrial repeaters be limited to no more than 2 kW EIRP – the limit imposed in 1997 on terrestrial WCS operations immediately adjacent (both above and below) to the SDARS band. Even XM recognizes that a 2 kW EIRP limitation is “completely standard” in the band.¹⁶ AWS continues to believe that a 2 kW maximum is the appropriate level for all services in the band, including SDARS.

To date, AWS has begun to deploy WCS fixed wireless local access networks in thirteen markets. Since XM and Sirius provided information on their repeaters as part of their STA requests, AWS has determined that, if the proposed repeaters are allowed to operate at the power levels indicated:

- 15 existing AWS base stations, capable of serving 66,500 households in six markets, will receive debilitating interference;
- 34 additional base stations that are nearing completion, capable of serving 145,450 households in eight markets, will receive debilitating interference; and
- approximately another 92,250 households in eight markets will be within the exclusion zones for customer premises equipment created by the proposed SDARS repeaters.

And of course, these numbers will only increase as AWS continues to roll out WCS services in additional areas and markets.

The charts attached hereto demonstrate the impact of SDARS high power repeaters on AWS base stations – both existing stations and those stations that should be operational by the end of this year (*i.e.*, during the term of the STAs requested by XM and Sirius). The charts were created using the deciBel Planner software package that the

¹⁶ See Letter from Bruce D. Jacobs to Magalie Roman Salas, IB Docket No. 95-91, dated April 25, 2001, at p. 2.

SDARS licensees have asserted in the SDARS proceeding would provide an accurate predictor of interference, taking into account factors that might mitigate signal propagation. For purposes of this analysis, AWS has used the -45 dBm sensitivity threshold for its base station equipment and assumed deployment at a height of 30 meters.¹⁷ For each market where they have an impact, there is a separate chart for XM and for Sirius.¹⁸

As the foregoing analysis demonstrates, some of the proposed terrestrial repeaters are certain to degrade seriously the WCS network already deployed or to be deployed within the very near future by AWS. Attachment A lists the individual repeater stations this analysis shows will cause interference to AWS' WCS operations if the Commission authorizes their use by the SDARS licensees.

In addition, grant of the requested STAs could also have a more widespread impact on the integrity and enforcement of the Commission's rules if it is viewed as a ratification of an abuse of the Commission's experimental authorization regime. The Commission has noted in the past instances in which companies have attempted to abuse its processes using experimental authorizations.¹⁹ In fact, it has admonished satellite licensees in particular not to seek advantage in the regulatory process based on expenditures made on experimental satellite facilities:

¹⁷ The parameters used in this analysis are those previously submitted by AWS for its WCS equipment in the SDARS proceeding. *See* Letter from William M. Wiltshire to Ronald Repasi, IB Docket No. 95-91, dated March 8, 2001; Letter from William M. Wiltshire to Magalie Roman Salas, IB Docket No. 95-91, dated April 17, 2001.

¹⁸ AWS would like an opportunity to perform a similar analysis on the standard power repeaters that XM and Sirius plan to deploy once full information on their locations and characteristics is available.

¹⁹ *See, e.g., Amendment of Part 5 of the Commission's Rules to Revise the Experimental Radio Service Regulations*, 11 FCC Rcd. 20130, 20136 (1996).

[W]e are aware that by its very nature, building and launching a satellite is costly and, as in the case of any costly experiment, we do not wish to create an expectation that sizeable investments in an experiment necessitate or mandate any particular course of action by the Commission in future proceedings. Part 5 procedures are not a substitute for the normal Commission licensing process. Indeed, an applicant granted experimental authority takes the license subject to the discretion of the Commission to change or cancel the license at any time, should the need arise. 47 C.F.R. § 5.68. We emphasize, therefore, that the grant of a license to permit experimental satellite service does not create any future obligation by the Commission to allocate spectrum permanently to grant licenses.²⁰

The Commission cannot allow the SDARS licensees to leverage their “experimental” activities into *de facto* commercial operations. Both XM and Sirius have, under the guise of their experimental authorizations, built *nationwide* networks intended for commercial use, operating at levels up to 20 times greater than the acknowledged standard in the band, in the absence of final service rules and without even reporting to the Commission the extent of their “experimental” operations.²¹ Experimental authorizations are granted with the express understanding that such authorization does not confer any right to conduct an activity of a continuing nature.²² Accordingly, XM and Sirius have deployed their high power repeater networks explicitly at their own risk and with no reasonable expectation of continued use. They have no equitable claim to preferable treatment nor any argument that the Commission is somehow estopped from denying them commercial authorizations for their experimental deployments.

²⁰ *Policy Statement on Experimental Satellite Applications*, 7 FCC Rcd. 4586 (1992).

²¹ Commission policy requires the holder of a blanket experimental license to “notify [the FCC] of the specific details of each individual experiment, including location, number of base and mobile units, power, emission designator, and any other pertinent technical information not specified by the blanket license.” *Amendment of Part 5 of the Commission’s Rules to Revise the Experimental Radio Service Regulations*, 13 FCC Rcd. 21391, 21394 (1998).

²² *See* 47 C.F.R. § 5.83.

The Commission cannot and must not allow the existence of these repeaters to color its deliberations. Moreover, *if* the Commission decides to grant either or both of the requested STAs, it must do so on a basis totally independent of the existing repeater deployment and in a manner that explicitly and forcefully reaffirms that those who might seek to gain advantage in the licensing process through the use of an experimental authorization will be unsuccessful.

C. Any Grant of an STA Must Include Necessary Safeguards.

In these comments, AWS has identified a number of issues that the SDARS licensees must address in order to meet the threshold requirements for grant of an STA. AWS doubts very much whether Sirius in particular can demonstrate “extraordinary circumstances” for an authorization at this time, given that it does not intend to launch commercial service for several more months and can continue to test its repeaters under its existing experimental license (as it has stated it intends to do).²³

Nonetheless, AWS has no desire to preclude the short-term use of terrestrial repeaters where their operation would not affect AWS’ own WCS operations. Thus, *if* the Commission at some point finds that the SDARS licensees have otherwise made the requisite showing to justify grant of an STA, AWS would not oppose such a grant under the following conditions:

- Any such STA must *not* include authorization to operate the specific stations identified in Attachment A hereto that demonstrably will cause interference to AWS’ existing and soon-to-be-deployed WCS operations.

²³ See Sirius Request at p. 2.

- Each SDARS licensee must provide full disclosure of information on the location and operational characteristics of *all* repeaters, including its standard power repeaters (*i.e.*, those operating at 2 kW EIRP or less), prior to effectiveness of the STA.
- The term of the STA should be set to expire upon the earlier of (a) 90 days or (b) issuance of final rules in the SDARS proceeding. Although the Commission can grant an STA for up to 180 days, AWS submits that 90 days is a more appropriate term. It should be a sufficient bridge while the SDARS rules are finalized and adopted, but it will also allow the Commission and all parties to revisit the efficacy of the conditions imposed in the STA in a timely manner.
- Terrestrial repeaters must not cause any interference to other licensed services and must accept interference from other licensed services, and the recipient must agree to turn off any repeater(s) *immediately and without debate* upon notification of interference from an affected licensee.²⁴ In order to effectuate this condition, the recipient should designate a point of contact with authority to order the immediate cessation of repeater transmissions. In recent weeks, both XM and Sirius have filed *ex parte* statements in the record of the SDARS proceeding in which they indicate that, once their current terrestrial repeater networks are activated, they will be unable to decrease the power of (or, presumably, stop transmitting altogether from) a terrestrial repeater without causing a disruption in SDARS service.²⁵ Any recipient of an STA must

²⁴ Both XM and Sirius appear to recognize and accept this non-interference limitation. See XM Request at p. 2 and Sirius Request at p. 3.

²⁵ See Letter from Lon C. Levin to Donald Abelson and Thomas Sugrue, Docket No. IB 95-91, dated August 7, 2001, at p. 7; letter from Jennifer D. Hindin to Magalie Roman Salas, Docket No. IB-95, dated July 31, 2001.

explicitly agree to cease transmission regardless of any claim of disruption to its SDARS service.

- As discussed above, any STA granted to XM or Sirius must explicitly state that such grant is without prejudice to any decision the Commission might make in the ongoing SDARS rulemaking and will create no estoppel or equitable claim to continue operations once the STA has expired.²⁶ The Commission should also state clearly that the willingness of AWS and other WCS licensees to acquiesce to the temporary operation of high power repeaters on a non-interference basis does not give rise to any presumption that they are similarly willing to do so on an ongoing basis.

* * *

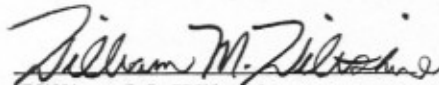
²⁶ XM acknowledges this principle in its STA request (XM Request at p. 2), but Sirius' request does not include a similar recognition.

For the reasons stated above, the Commission cannot grant the STA requests as currently submitted. The SDARS licensees will have to augment their applications with significant additional information in order to meet the threshold requirements that could justify grant of their requests. If the applicants are able to make the requisite showing, the Commission should condition any STA granted in these proceedings as outlined above in order to ensure that AWS and its subscribers are not subjected to disruption of their lifeline services.

Respectfully submitted,

AT&T WIRELESS SERVICES, INC.

By:



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Dated: August 21, 2001

ATTACHMENT A

| <i>XM Interfering Repeaters</i> | <i>Market</i> |
|---------------------------------|---------------|
| XM 37A | Cincinnati |
| XM 29B | Cincinnati |
| XM 25C | Cincinnati |
| XM 43D | Cincinnati |
| XM 37A | Cincinnati |
| XM 41A | Cincinnati |
| XM 9B | Houston |
| XM 606A | Houston |
| XM 15B | Houston |
| XM 604A | Houston |
| XM 22C | Kansas City |
| XM 5A | Las Vegas |
| XM 1B | Oklahoma City |
| XM 008A | San Diego |
| XM 007B | San Diego |
| XM 002B | San Diego |

| <i>Sirius Interfering Repeaters</i> | <i>Market</i> |
|-------------------------------------|---------------|
| Sirius CI_1* | Cincinnati |
| Sirius CO_1 | Columbus |
| Sirius LV_1 | Las Vegas |
| Sirius LV_2 | Las Vegas |
| Sirius LA_1 | Los Angeles |
| Sirius LA_2 | Los Angeles |
| Sirius LA_6 | Los Angeles |
| Sirius LA_9 | Los Angeles |
| Sirius LA_11 | Los Angeles |
| Sirius LA_12 | Los Angeles |
| Sirius OK_1 | Oklahoma |
| Sirius SD_1 | San Diego |

* Number refers to order of repeater in each market on the list accompanying Sirius' STA request.

ATTACHMENT B

**INTERFERENCE PLOTS FOR XM AND SIRIUS
HIGH POWER TERRESTRIAL REPEATERS**

Sirius Interference to Base Stations: San Diego

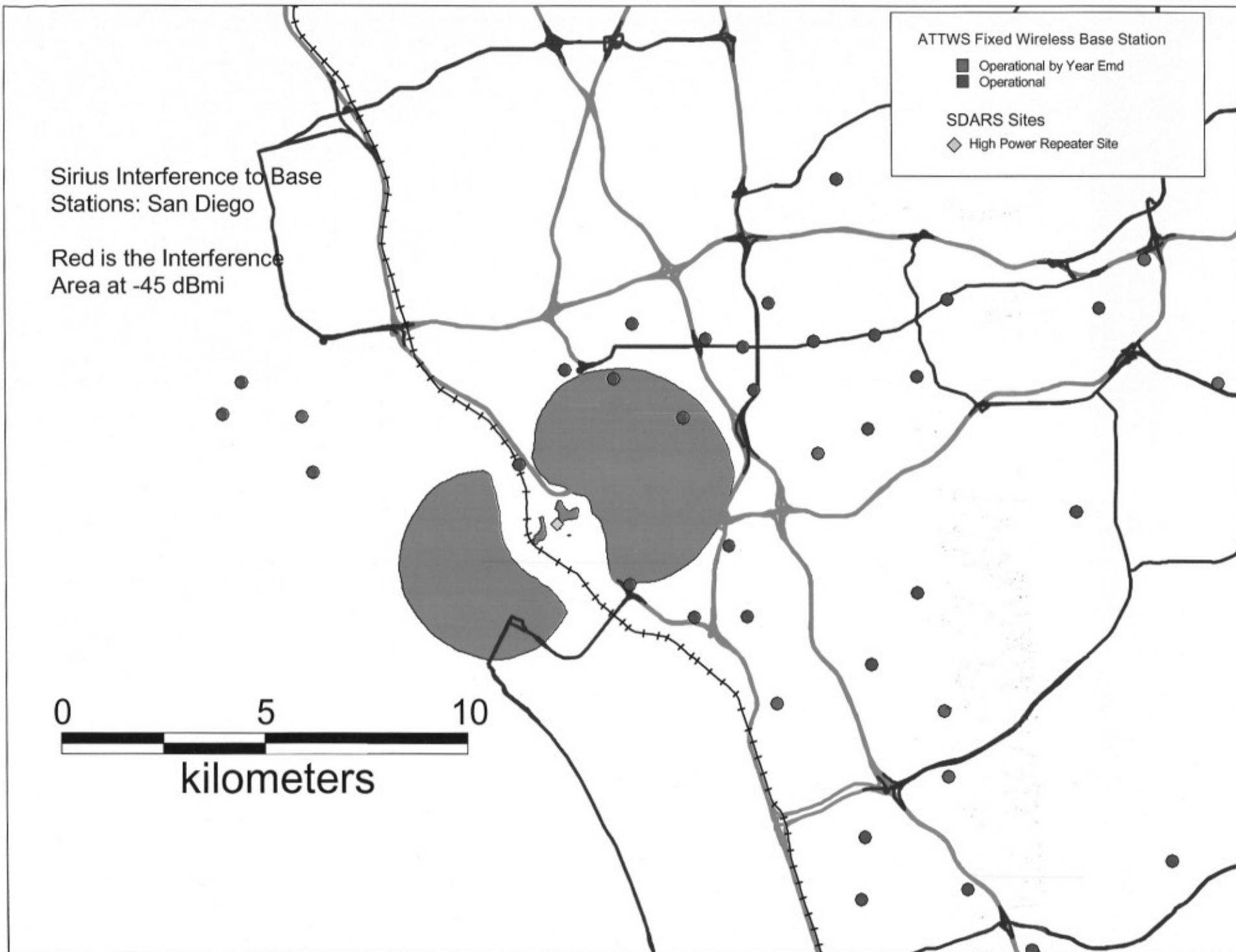
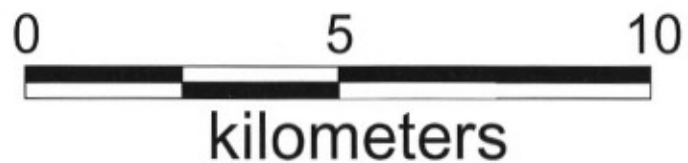
Red is the Interference Area at -45 dBmi

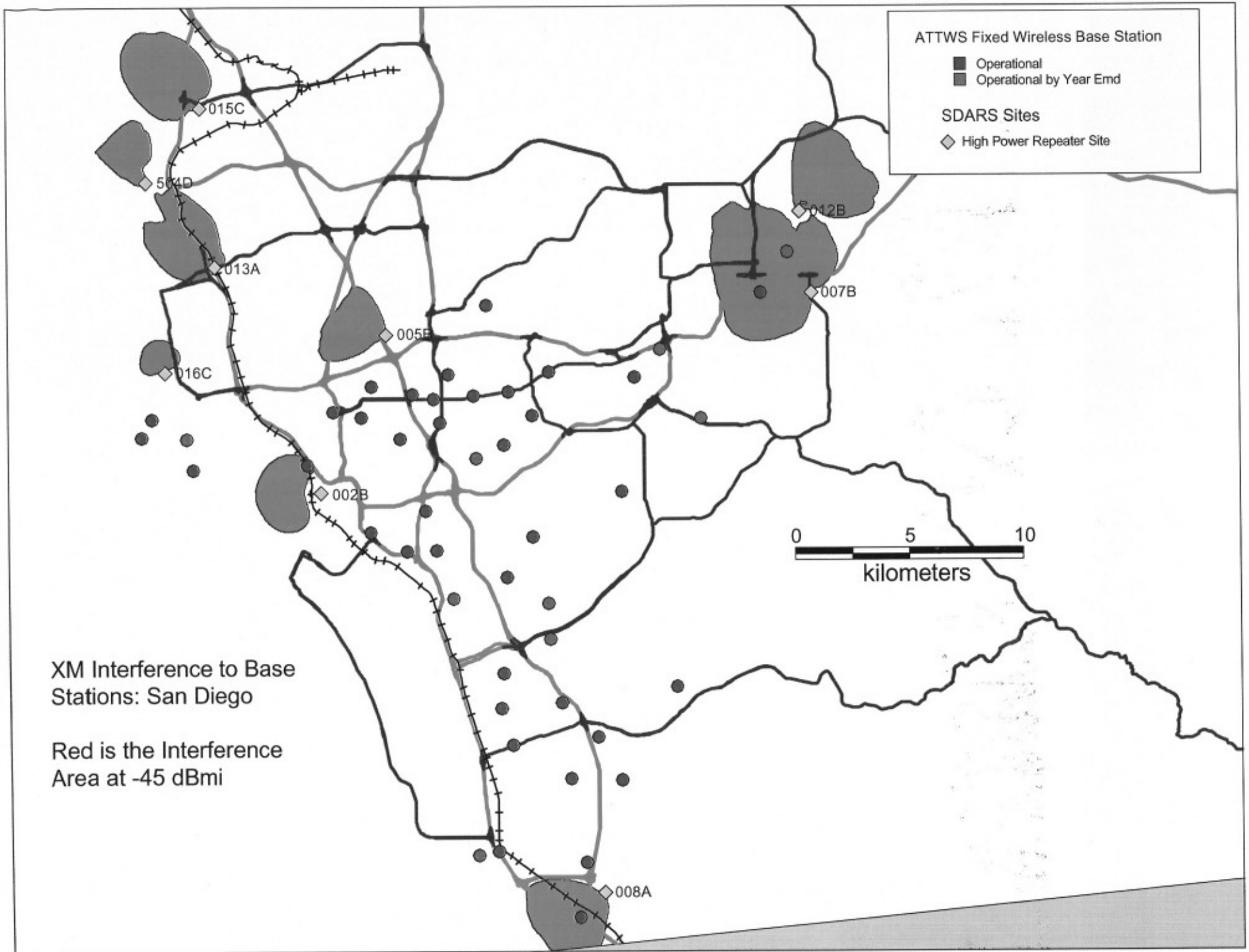
ATTWS Fixed Wireless Base Station

- Operational by Year Emd
- Operational

SDARS Sites

- High Power Repeater Site





Sirius Interference to Base Stations: Oklahoma City

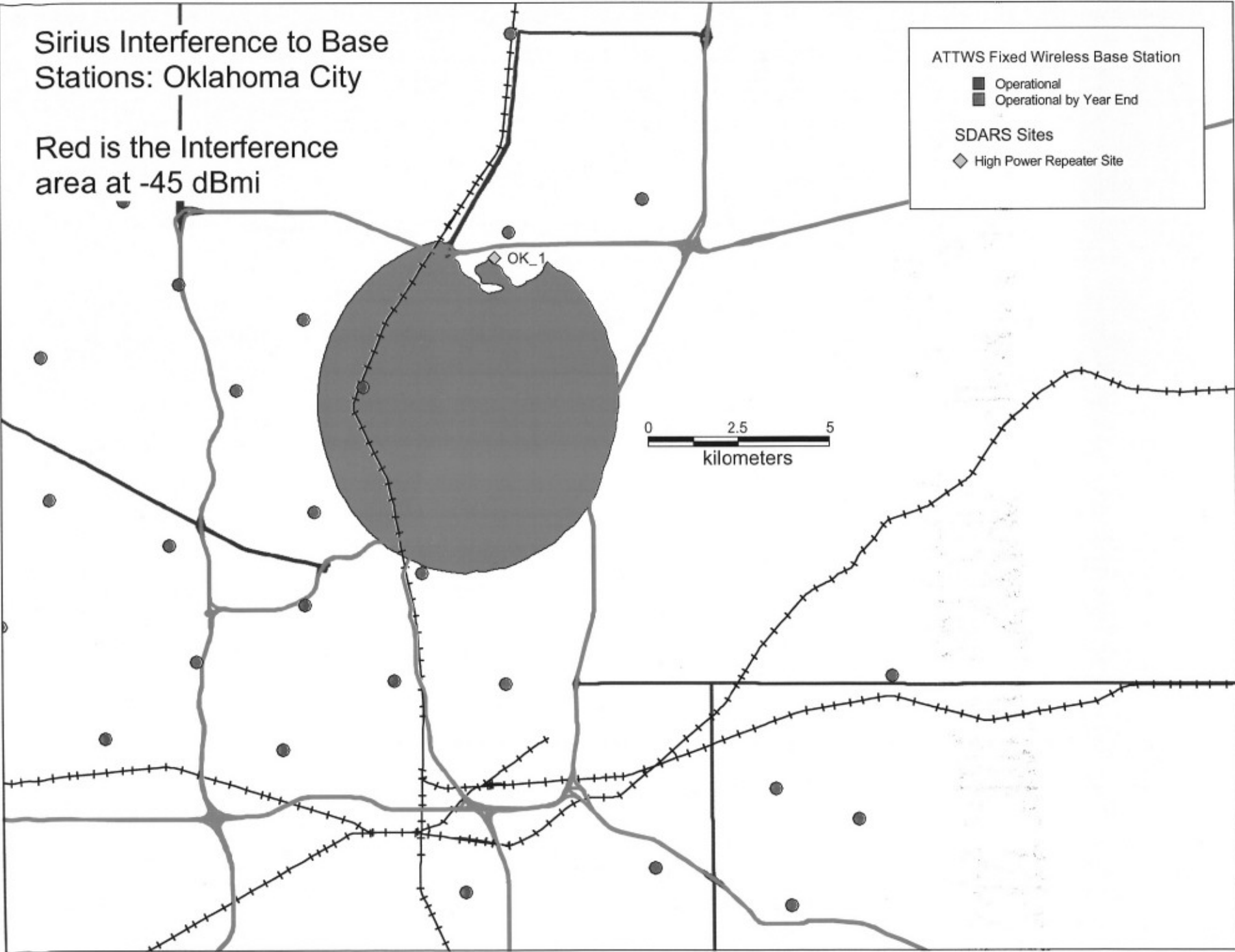
Red is the Interference area at -45 dBmi

ATTWS Fixed Wireless Base Station

- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site



XM Interference to Base Stations: Oklahoma City

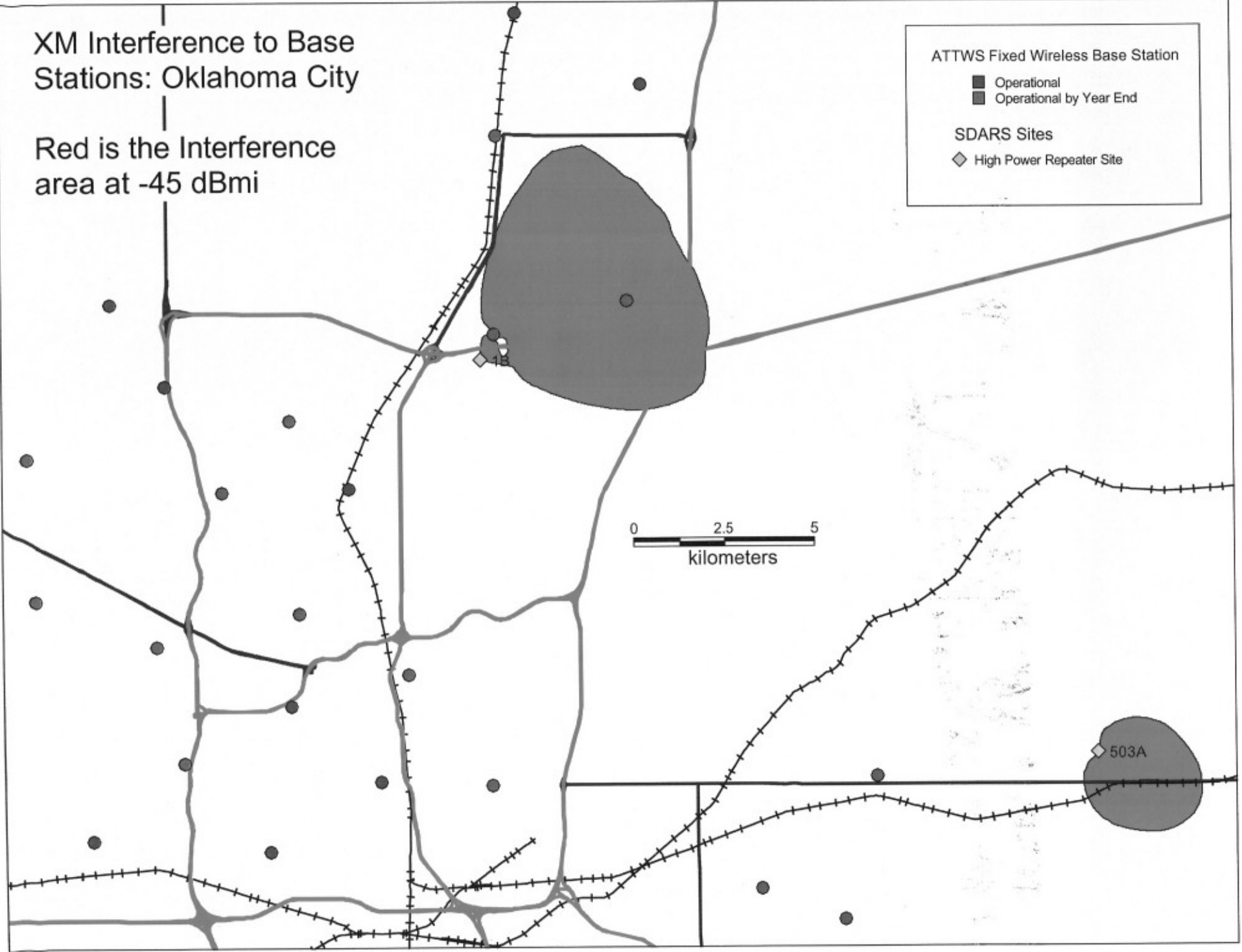
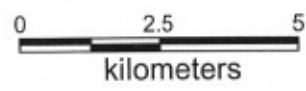
Red is the Interference area at -45 dBmi

ATTWS Fixed Wireless Base Station

- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site



Sirius Interference to Base Stations: Las Vegas

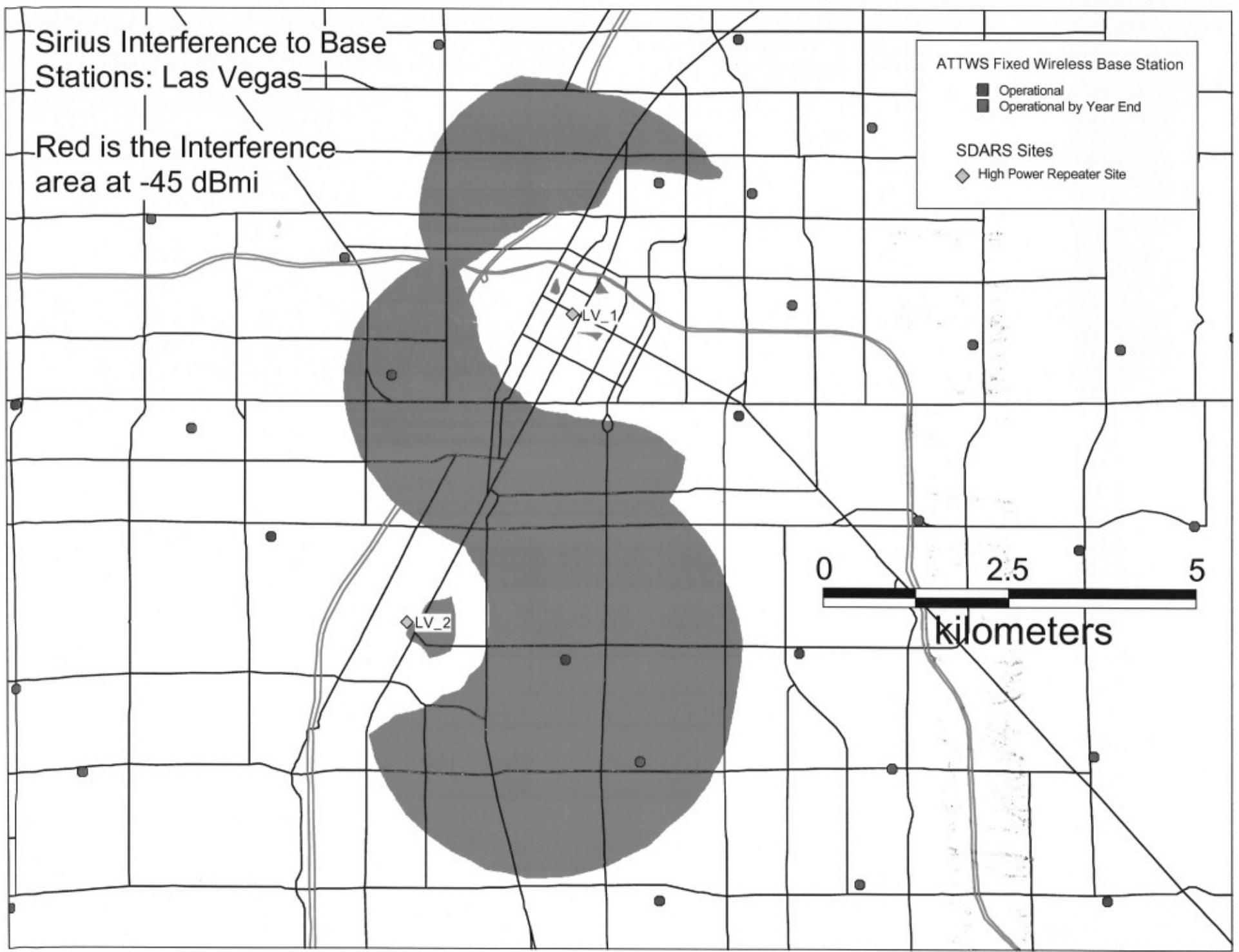
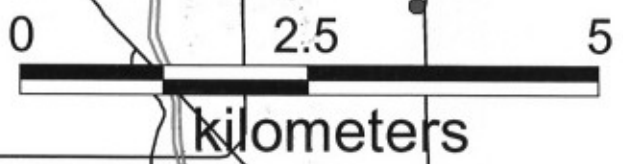
Red is the Interference area at -45 dBmi

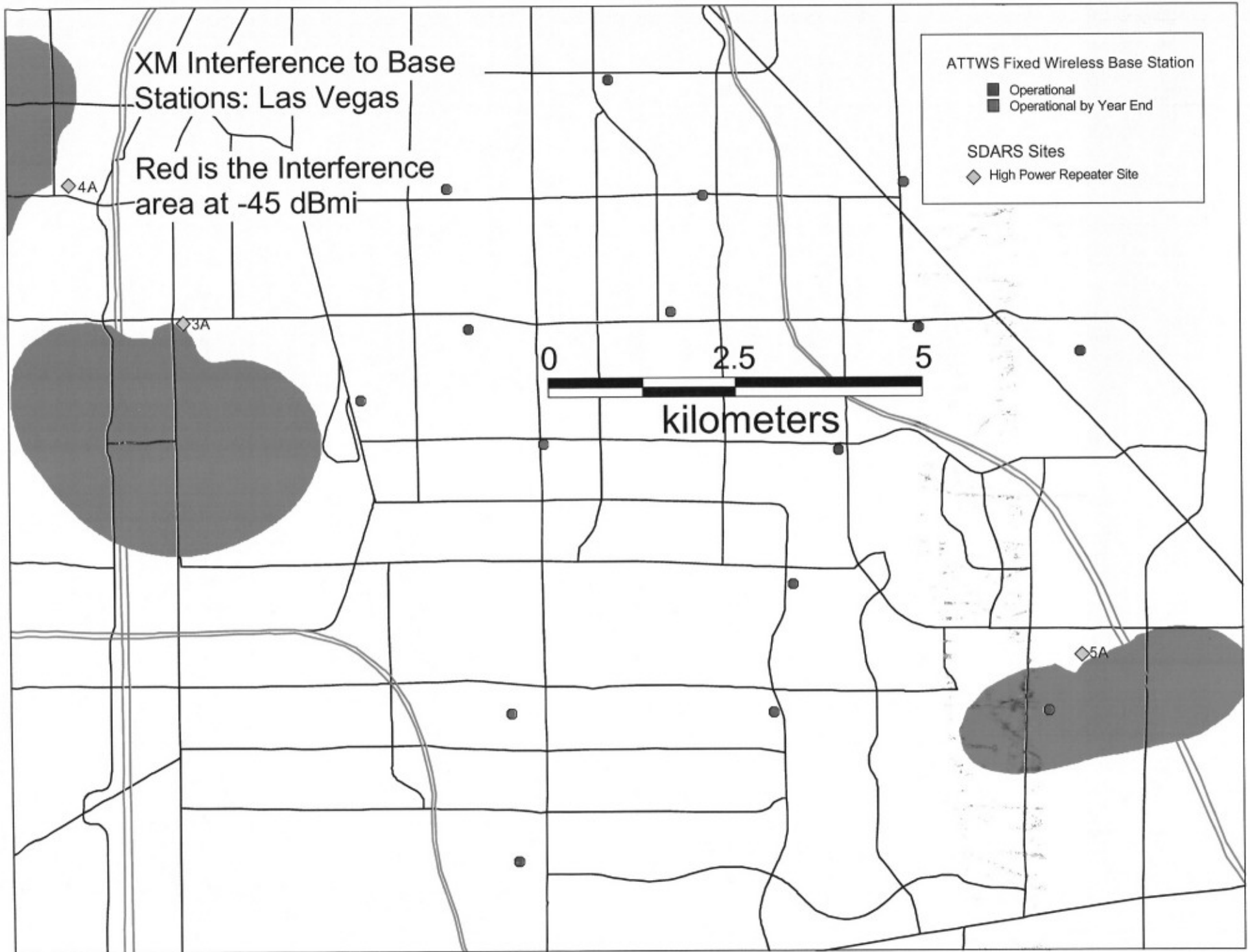
ATTWS Fixed Wireless Base Station

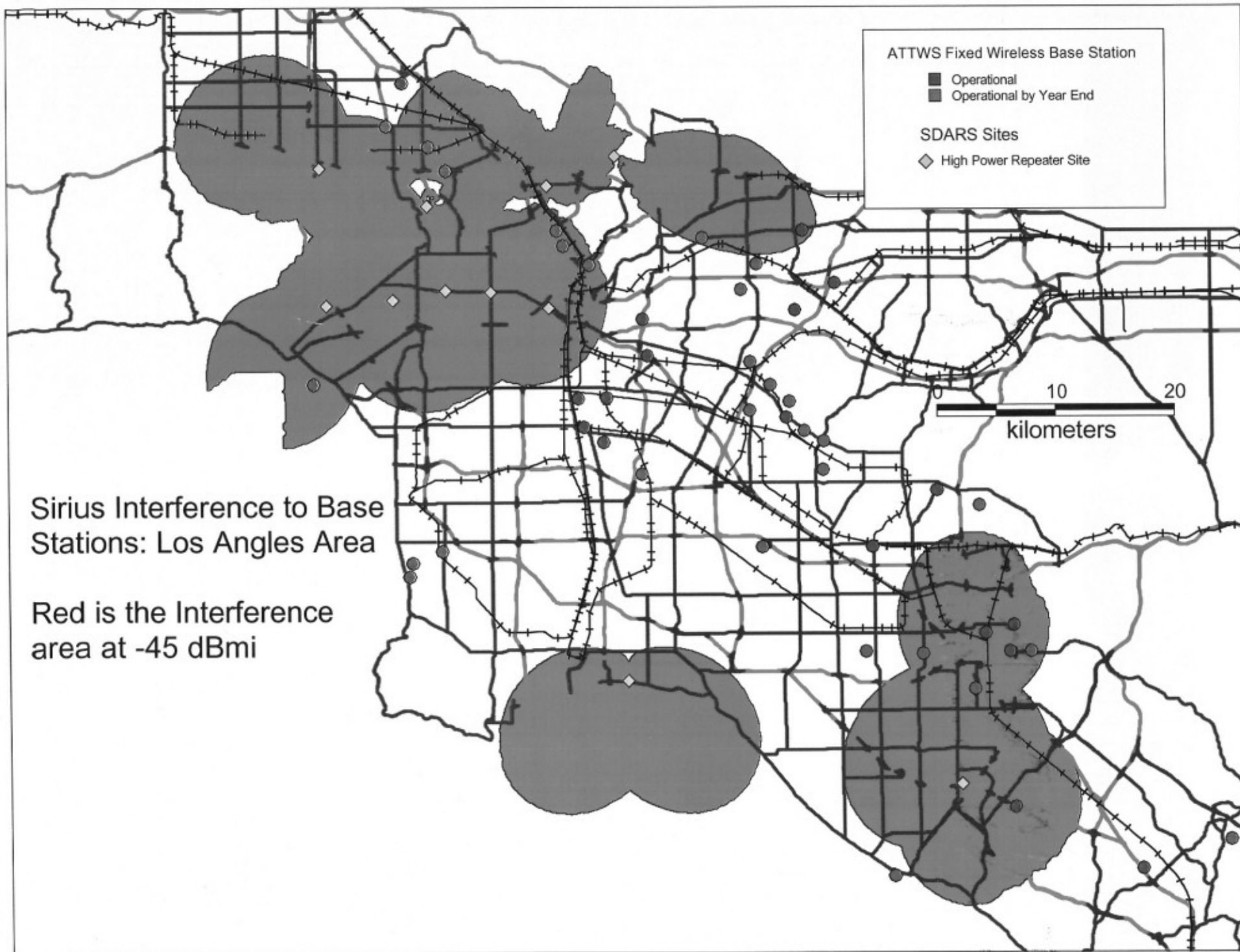
- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site







XM Interference to Base Stations: Kansas City

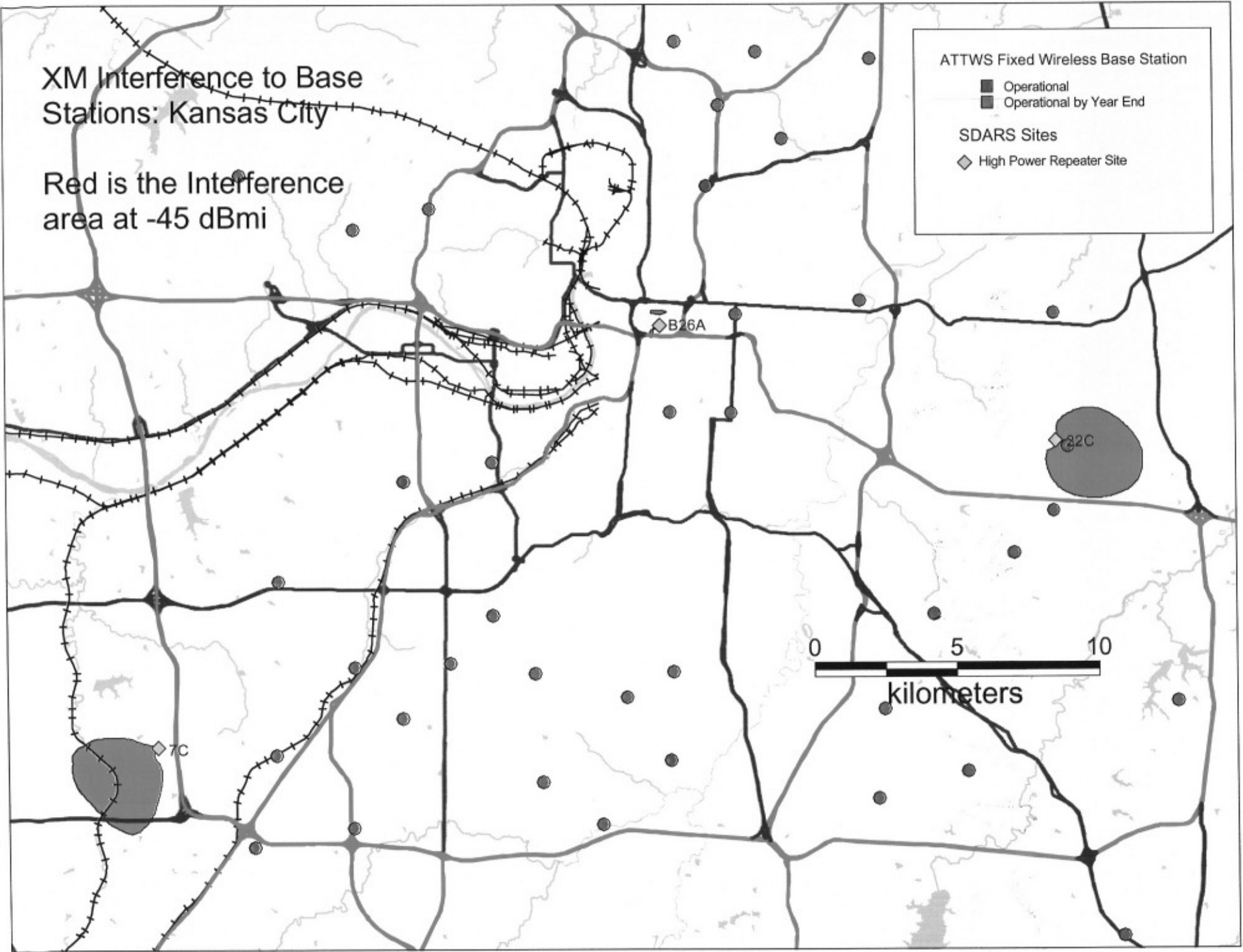
Red is the Interference area at -45 dBmi

ATTWS Fixed Wireless Base Station

- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site



XM Interference to Base Stations: Houston

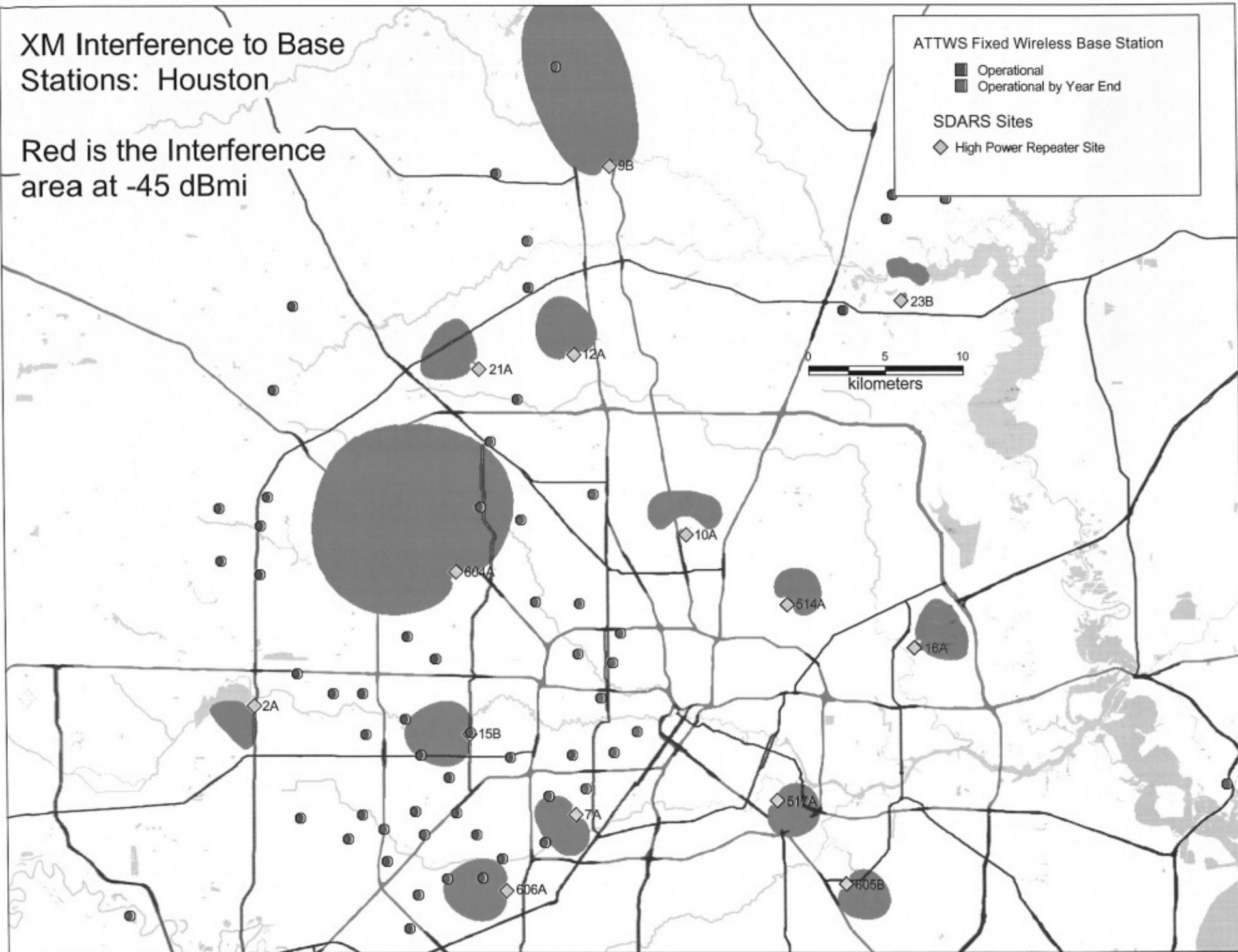
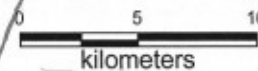
Red is the Interference area at -45 dBmi

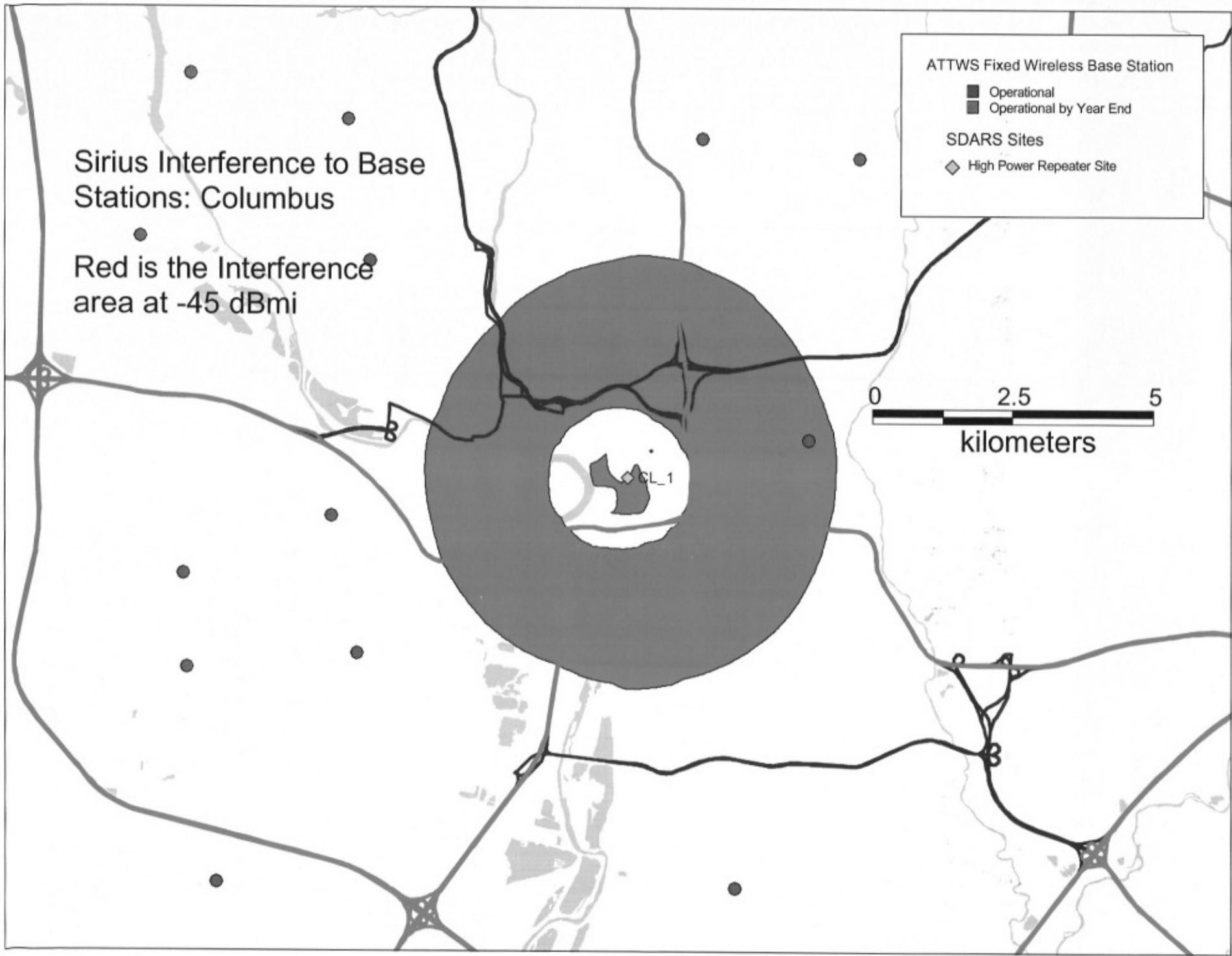
ATTWS Fixed Wireless Base Station

- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site





Sirius Interference to Base Stations: Cincinnati

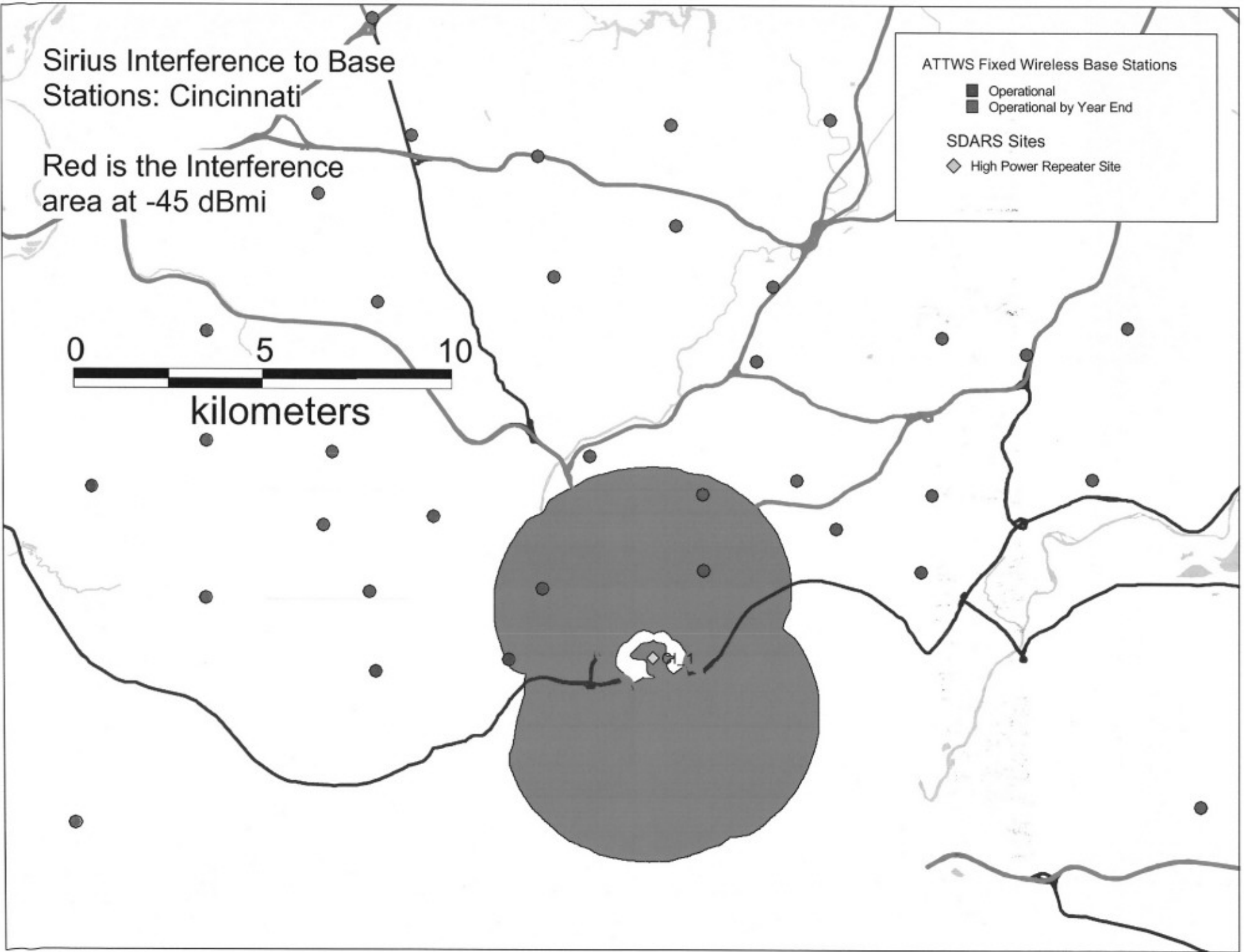
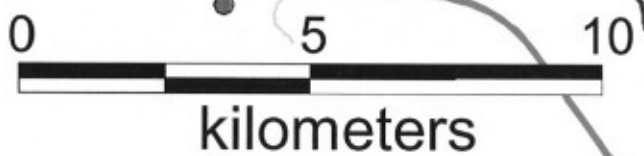
Red is the Interference area at -45 dBm

ATTWS Fixed Wireless Base Stations

- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site



XM Interference to Base Stations: Cincinnati

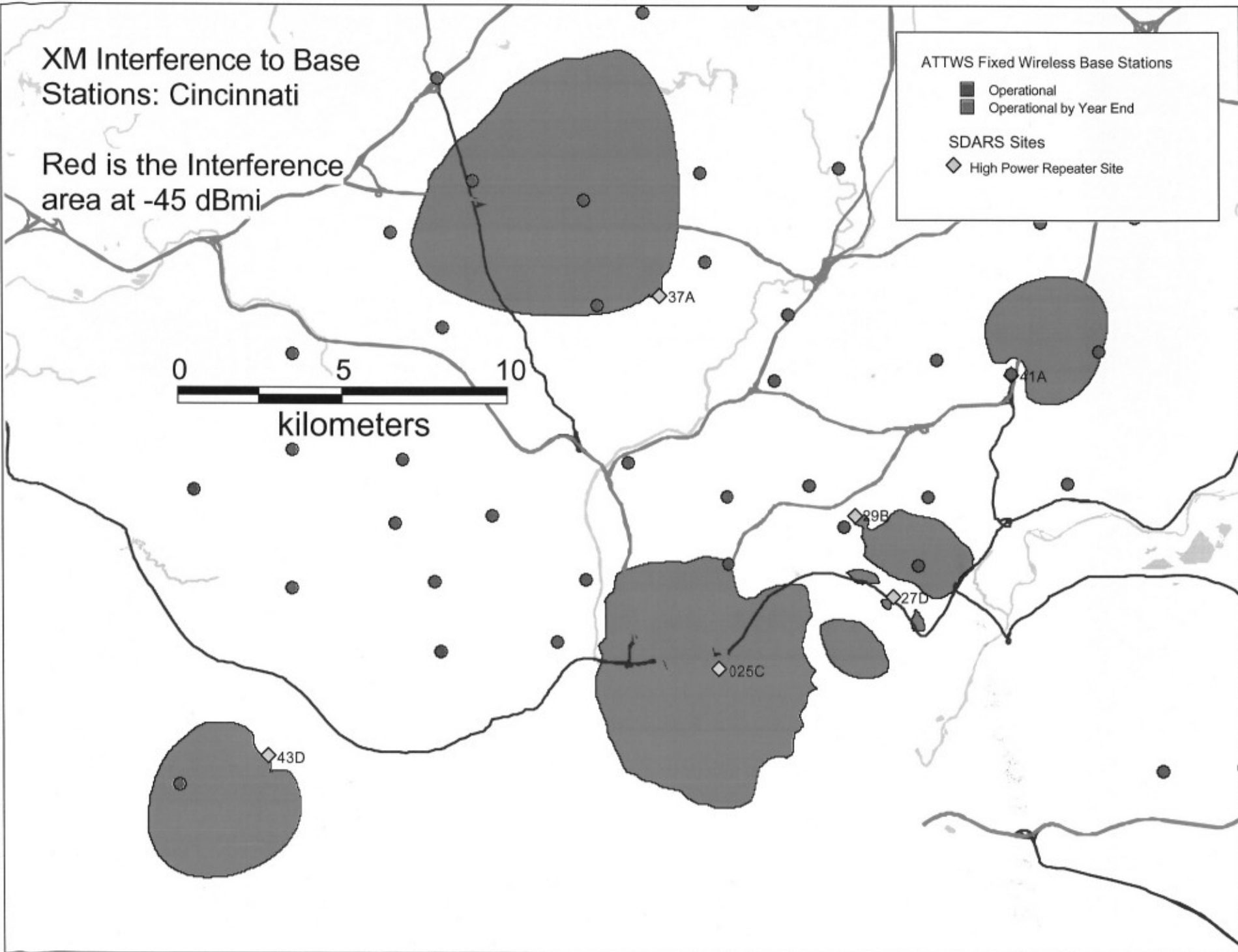
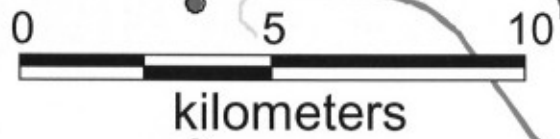
Red is the Interference area at -45 dBm

ATTWS Fixed Wireless Base Stations

- Operational
- Operational by Year End

SDARS Sites

- High Power Repeater Site



CERTIFICATE OF SERVICE

I hereby certify that on this 21st day of August, 2001, a copy of the foregoing
Comments of AT&T Wireless Services, Inc. was served by hand upon:

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