

# A Brief History of 9-1-1

**1937** The British implemented their first emergency number system (9-9-9). Australia, New Zealand, and individual Canadian metro areas follow.

**1967** 30 years later, the US Congress was investigating why fire deaths were higher in the US than other industrialized countries. A lack of rapid response was cited as one reason and a single emergency number was suggested as part of the solution.

**1967** Lyndon Johnson's Commission on Law Enforcement and Administration of Justice issued a report recommending that police departments have a single number to call, and that eventually a single number should be used nationwide.

**1968** ATT announced plans to develop the technology to allow 3-digit emergency calling. During the next 4 years, ATT installed 911 systems in various cities around the country

**1972** The Federal Communications Commission (FCC) recommended that 911 be implemented nationwide. It isn't until 1999 that President Clinton actually signed Senate Bill 800 designating 9-1-1 as the nationwide emergency telephone number

**1975** Bell Labs received a patent for the first "selective routing" technology that allowed software to replace the mechanical switching that was used to direct 911 calls to the emergency dispatcher, permitting the calling number to be reported to the dispatcher.

**1980** AT&T tests the first "Enhanced 911" systems in Dade Co. Florida and St. Louis – allowing the caller's number be used to retrieve a calling address from a database and to be sent to the dispatcher

**1982** Minneapolis – St. Paul was the first multi-county 911 system in the nation (7 metro counties).



U.S. Rep. Tom Beville (Ala) answers the nation's first 9-1-1 call – Feb. 16, 1968.

Fifteen days after ATT announced their plans to develop 3-digit emergency calling, the Alabama Telephone Company (ATC), after an intensive effort to beat ATT to the punch, tested the first actual 911 call in the United State at 2 p.m. on Friday, Feb. 16, 1968 in Haleyville (Ala.).

The digits 9-1-1 were chosen (rather than the British 9-9-9), presumably because ones are easier and quicker to dial on a rotary phone.

Not until 1999 were the digits 9-1-1 formally reserved nationwide for emergency calling by the federal Wireless Communications and Public Safety Act



The (red) telephone that was actually used for that first call is now in a display case at the Haleyville police station.



**1985** North Dakota Legislature authorized cities and counties to develop an “emergency services communications system” and to impose, through an election, a 50-cent per phone line fee per month on all phone service in the jurisdiction to fund its development. The fee, if approved, is to remain in-place for 6 years before it is again placed on the ballot.

**1987** The North Dakota Legislature creates a governor’s-appointed “emergency services communication system advisory committee” to establish standards and guidelines and a rural addressing system which local 911 jurisdictions must follow. This was created as temporary law and the sunset extended several times.

**1991** The North Dakota Legislature permits local jurisdictions to place on the ballot a question raising the emergency services communications system fee from 50-cents to \$1 per line per month.

**1995** The North Dakota Legislature allows the governor’s-appointed “emergency services communication system advisory committee” to expire and allows the existing local fees to continue without a vote for a maximum of 12 years.

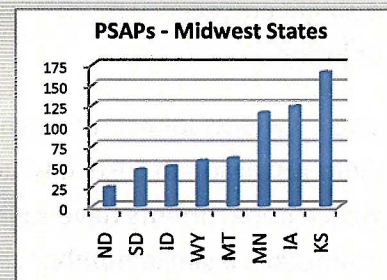
**1995** The North Dakota Legislature allows State Radio, through temporary law, to provide PSAP services to an additional 9 counties (totaling 20), but allowing no additions until the conclusion of an interim study.

**1996** The FCC issues Docket 94-102 mandating that all cellular phone companies provide Phase 1 (phone number & tower) and Phase 2 (caller location) Wireless 911 to jurisdictions that “request” such service. State and local 911 jurisdictions are to have a “cost-recovery” plan to facilitate implementation.

**1997** The North Dakota Legislature allows State Radio, through temporary law, to provide PSAP services to an additional 2 counties (totaling 22).

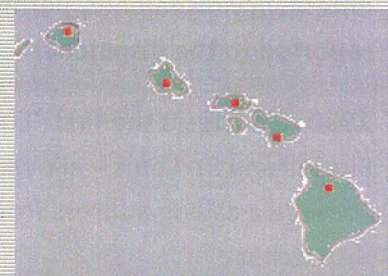
**1998** First Phase 1 wireless 911 call is made in the US (Indiana) providing call back number and tower site location.

Multi-county agreements and the involvement of State Radio have resulted in North Dakota having 23 PSAPs – one of the States with the fewest number of PSAPs in the country, and by far the fewest in the Midwest.



STATE	Number of PSAPs
North Dakota	23
South Dakota	45
Idaho	49
Wyoming	56
Montana	59
Minnesota	115
Iowa	123
Kansas	165

The State of Hawaii has 5 PSAPs – one for each of the major islands.





**1999** Congress enacts the Wireless Communications and Public Safety Act mandating that the digits 9-1-1 will be the national emergency number and that all calls must be routed to some emergency service if these numbers are dialed – even if there is no operating PSAP.

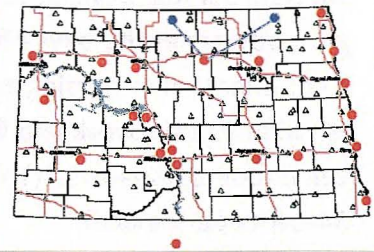
**1999** The North Dakota Legislature enacts permanent law permitting State Radio to act as a 911 public safety answering point (PSAP) for counties – the State must charge at least 20-cents per line per month for this service.

**2001** The first Phase 2 wireless 911 call is made in the US (Illinois), providing a dispatcher with the actual latitude and longitude location of caller. Wireless calls are still routed through the legacy (analog) landline 911 network, but by using a range of “pseudo-numbers” for each cell site, the system can be manipulated to “bid” for location information on phone lines separate from those carrying the caller’s voice.

**2001** The North Dakota Legislature codifies as NDCC 57-40.6-10, the last set of standards and guidelines in effect at the expiration of the governor’s committee, and limits State Radio to providing 911 PSAP services to counties with populations below 20,000, but directs that the 20-cent per “line” fee be assessed on both landline and wireless (cellular) devices.

**2001** The North Dakota Legislature permits local governing boards to extend their current emergency services communications system fee to cellular phones and implement the necessary system upgrades to receive Phase 1 and Phase 2 wireless 911 calls. The fee must be assessed equally upon all service types and may not be used to “build out” a cellular phone service network. By December of 2001 all jurisdictions extend the fee.

**2001** An “emergency services communications coordinating committee (ESCCC)” is created by the Legislature to receive and compile reports on the expenditure of fee revenue. Reports of this information are submitted by the Committee to the Legislative Council in 2002, 2004, 2006, and 2008.



North Dakota PSAP locations (Red Dots). The Red River Regional Dispatch Center handles emergency communications for Fargo, West Fargo, Cass County, Moorhead, and Clay County, MN.

Pierce, Cavalier and Bottineau/Renville are linked on the map because, technologically, they are one PSAP with three virtual dispatch locations.

PSAP	Pop. Served
Red River Reg.	174,400
State Radio	72,300
Burl/Bismarck	69,400
Grand Forks	66,100
Ward/Minot	58,800
Lake Region	42,100
Stark/Dunn	26,200
Morton	25,300
Stutsman	21,900
Williams	19,800
Pierce/Cav/Bott	19,300
Richland	18,000
Walsh	12,400
Barnes	11,800
Mercer/Oliver	10,700
Traill/Steele	10,700
McLean	9,300
Pembina	8,600
Mountrail	6,600
McKenzie	5,700



**2002** North Dakota 911 jurisdictions develop a joint powers entity which to formally requests both Phase 1 and Phase 2 wireless service from all carriers on a statewide basis. The joint powers entity pays 48-cents per cell device per month for a combination of routing and transport of these calls over the landline 911 network and for “cost-recovery” to benefit the cell phone companies. (This has been renegotiated and is now 34-cents per device).

**2004** Noting the limitations of the current analog 911 backbone across the country, the U.S. Department of Transportation and the FCC announce their Next Generation 911 (NG911) initiative.

**2004** The U.S. Congress enacts the ENHANCE 911 Act to provide grants to States and local government to speed up the deployment of Wireless 911 and begin the deployment of NG911 – This 5-year authorization remains unfunded for its first four years.

**2005** (April) North Dakota becomes the sixth state in the country to have both Phase 1 and Phase 2 wireless 911 implemented on a statewide basis.

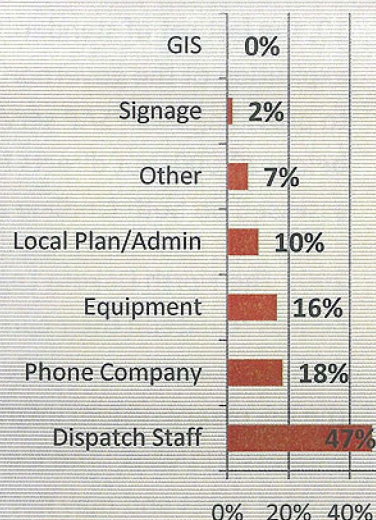
**2005** The ND State Auditor releases a report indicating that the 20-cents per device charged by State Radio is probably insufficient to meet the costs of services provided. A cost accountant is consulted and an internal evaluation process is completed calling for an increase of this fee to 34-cents per device.

**2005** The ND State Auditor releases a report suggesting that it is not possible to determine if the \$1/device/month is sufficient for adequate support for each jurisdiction’s emergency services communications system, as there were no guidelines indicating what is, and is not, an allowable cost for the expenditure of these funds. The governor’s committee that made this determination, based upon each jurisdiction’s implementation plan, no longer exists.

The Fourth ESCCC report to the Legislature – based on 2007 revenues and expenditures – indicated that \$13.5 Million was expended for statewide support of “emergency services. “911 Fee” revenue made up only 61% of those costs with the remainder coming from reserves and property taxes.

#### 911 System Revenue – 2007

Landline Phones	\$3,755,876
Wireless Devices	\$4,447,968
Reserves/Prop.Tax	\$5,318,180
<b>TOTAL</b>	<b>\$13,522,024</b>



The ESCCC report indicated that after the costs of salaries and benefits for the dispatch staff, the single largest expense consists of payments back to the phone companies for trunking & database services.



**2005** In North Dakota, 911 Fee revenue from wireless service exceeds landline revenue statewide.

**2005** FCC mandates that all Voice over Internet Protocol (VoIP) Service that is interconnected to the public switched network must route 9-1-1 calls and provide caller location information.

**2007** North Dakota Legislature expands the role of the ESCCC to develop expenditure guidelines that each local jurisdiction is to follow. The Legislature also extends the emergency services communications fee (still \$1 per device) to "prepaid wireless", "voice over Internet protocol" (VoIP) and any other communication service that connects to a public safety answering point by keying the numbers 9-1-1.

**2007** US DOT releases its NG911 Systems Initiative "Concept of Operations" report.

**2008** The ESCCC expenditure guidelines are finalized and become effective January 1<sup>st</sup>.

**2008** Joint Powers entity contracts with L.R. Kimball to develop a Next Generation 911 Master Plan for North Dakota – it is completed in December.

**2009** The North Dakota Legislature allows local jurisdictions that are involved in multi-jurisdiction PSAPs to raise their fee to \$1.50/device upon governing board resolution if the action was submitted to the electors at the next general election. This provision sunsets on June 30, 2012 – rolling the fee limit back to \$1/device

**2009** The North Dakota Legislature directs the ESCCC to coordinate planning for Next Generation 911 in North Dakota.

**2009** Congress funds the final year of the ENHANCE 911 Grant program. The ESCCC, through the State's Information Technology Department, applies for a grant and is awarded \$912,722 to begin NG911 implementation.

Survey data from 2007 summarizes the emergency communication system activity across the state. Comparing this data with previous surveys, the total number of 911 calls are increasing and the percentage of those coming from cell phones is going up quite substantially.

Dedicated 911 Trunks	86
Admin. Phone Lines	178
911 Calls per Month	14,642
Admin. Calls/Month	93,984
Total Calls per Month	108,626
Total 911 Calls/Year	175,700
Wireless % of 911 Calls	55%
Dispatch Stations	67
Dispatchers Full-Time	184
Dispatchers Part-Time	26
LE Agency Dispatched	113
Ambulances Dispatch	141
Fire Depts Dispatched	385
Agencies Dispatched	639

From 32 to 44 of the 200+ dispatchers are on duty at any given time. Front-line staffs are supported by 54 full- & 18 part-time dispatch supervisors, computer/radio technicians, GIS specialists, trainers & admin. staff.

Over 400,000 emergency response services of all types were directed to the 639 emergency responding agencies. On average, each PSAP must manage 27 responding agencies and anywhere from 2 to 17 local radio frequencies, in addition to those of State Radio.



# North Dakota's 911 Timeline

