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4237 ORCHARD DRIVE
GALESBURG, IL 61401

ALL LOCAL CHAIRMEN
BNSF NORTHLINES/MRL

February 21, 2003
File: Event Recorders/Auto Scan

Dear Sirs and Brothers:

Attached you will find a Carrier provided presentation describing the Carrier's program for automatically downloading event recorder data from the locomotive fleet. The document is self explanatory and most of you are familiar with the program, but we are providing it so that you are completely aware of all that comes with it.

Although we have been aware for some time that event recorder data was being retrieved on the fly so to speak, we were just recently apprised of what the Carrier intended to do with that data once retrieved. In the past few weeks, we received several complaints that local Carrier Officers were printing exceptions noted from the auto scan data, and posting them publicly at on duty locations with the involved employees names included. We also received complaints that letters were being sent at some locations threatening disciplinary action if specific levels of train handling improvement were not achieved in short order. Unfortunately the auto scan data was not always thoroughly screened for accuracy, before either of these handling methods were initiated and several engineers were confronted even though they could not be shown to have even participated in a train handling exception.

After receiving the complaints, Vice General Chairman Bratka and I brought the matter to Vice President Dealy at our most recent SACP meeting for discussion. We expressed our opinion that the Carrier's method of utilizing the auto scan data was inconsistent with not only the spirit of our Safety Summit Agreement, but was also accomplishing little besides humiliating and alienating employees. We suggested that if improved train handling, based on the Carrier's definitions and instructions, was the true goal, then hands on interaction with those alleged to have participated in a train handling violation would certainly be the preferred method or practice.

During our discussions, Vice President Dealy agreed that the public posting of the auto scan data would be discontinued, and also that the letters being sent to engineers would be revisited for content. That said, I would also offer that Vice President Dealy and the other Carrier Officers present made it very clear that those employees who did not respond to their suggested method of handling would eventually come under increased scrutiny. Fuel conservation is one of the Carrier's primary goals this year and they made it quite clear that continued power braking exceptions will not go unnoticed.

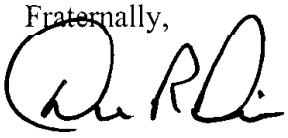
Also as part of our discussions, we agreed that we would forward the attached documentation with a clear explanation of the program. Make no mistake, whether you call this technology "big

brother" or not, event recorder data is being retrieved on the fly, and in some cases, is being reviewed here in Ft. Worth before you even complete your trip. The involved computer program auto generates a list of train handling exceptions from the data and this list is then distributed. We have asked that the Carrier use this data to insure that all involved engineers are advised of the Carrier's preferred train handling methods, rather than assessing, or threatening to assess, discipline as a first choice. For now the Carrier has agreed.

At our meeting, we passed on what some of you have stated, just tell us what you want and in most cases you will get it. We are operating the Carrier's equipment on the Carrier's tracks and once we are advised of the Carrier's train handling expectations, we should make every effort to be in compliance and I am sure that you all will. Although we know that each trip comes with its unique train handling events, those that necessitate something that would be out of compliance with the Carrier's instructions and make any exception list should be not only minimal, but explainable.

Please make every effort to distribute this information; our goal is to make sure that all engineers are aware of the Carrier's train handling expectations. If there are any questions concerning these expectations, please apply to your local Road Foreman for further instructions. If there are any further problems or concerns with local handling of the auto scan data, please contact the Office.

Fraternally,



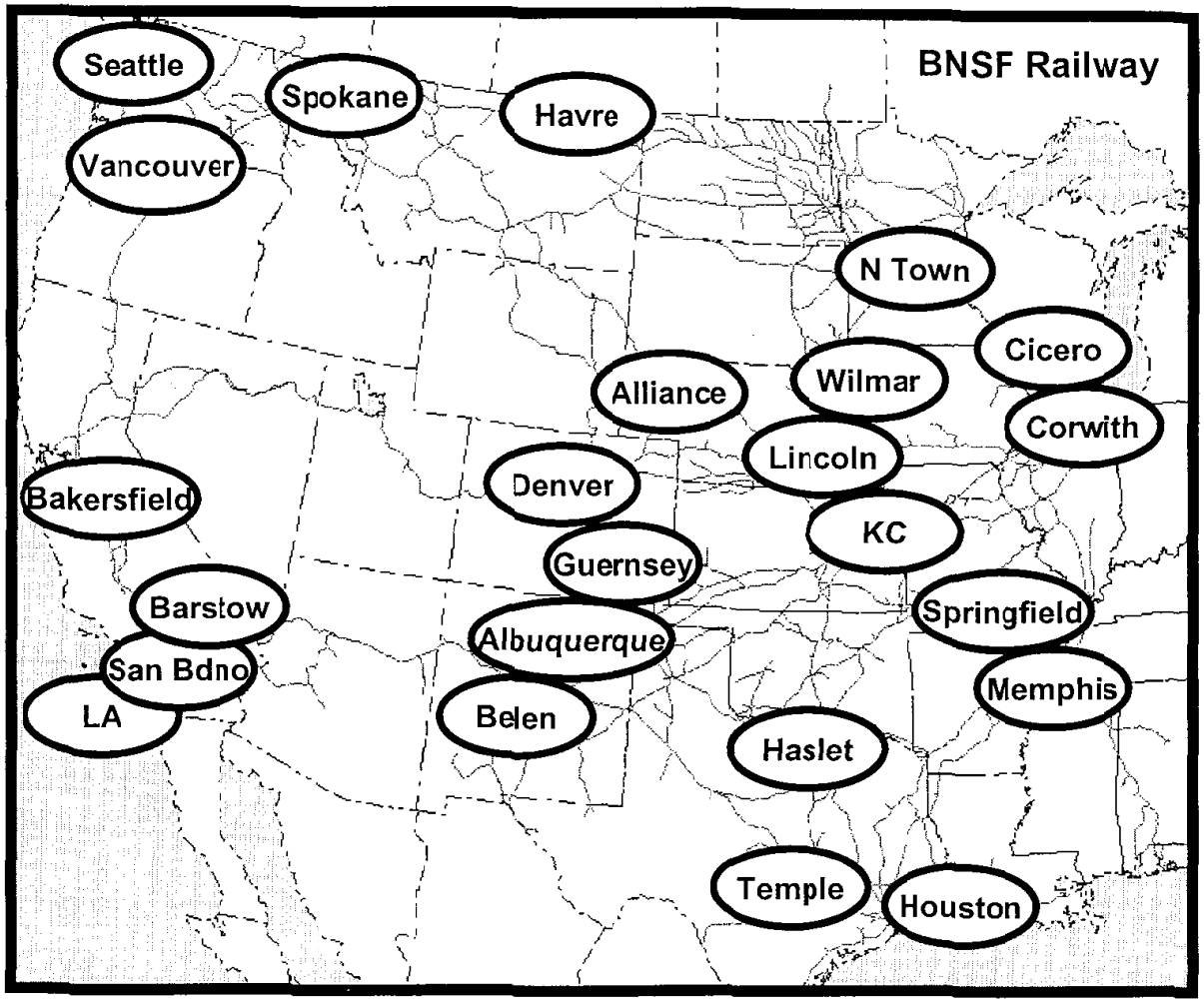
Dennis R. Pierce
General Chairman

cc: BLE General Chairmen, BNSF
Steve Speagle, Assigned Vice President, BLE
Don Hahs, International President, BLE

BNSF Event Recorder Automation

John M. Quilty
AVP - Operating Practices
Burlington Northern and Santa Fe

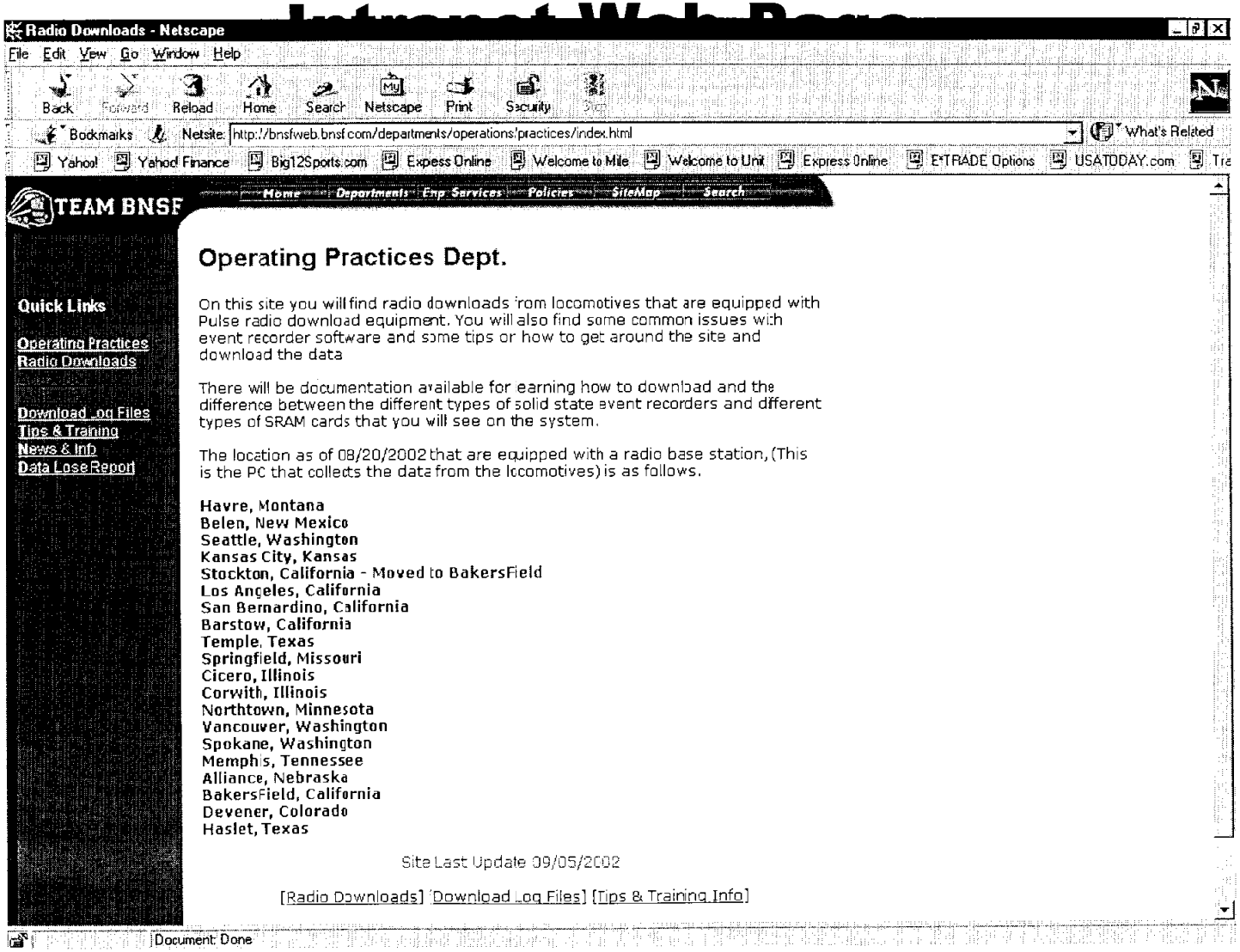
Current BNSF Wireless Base Stations



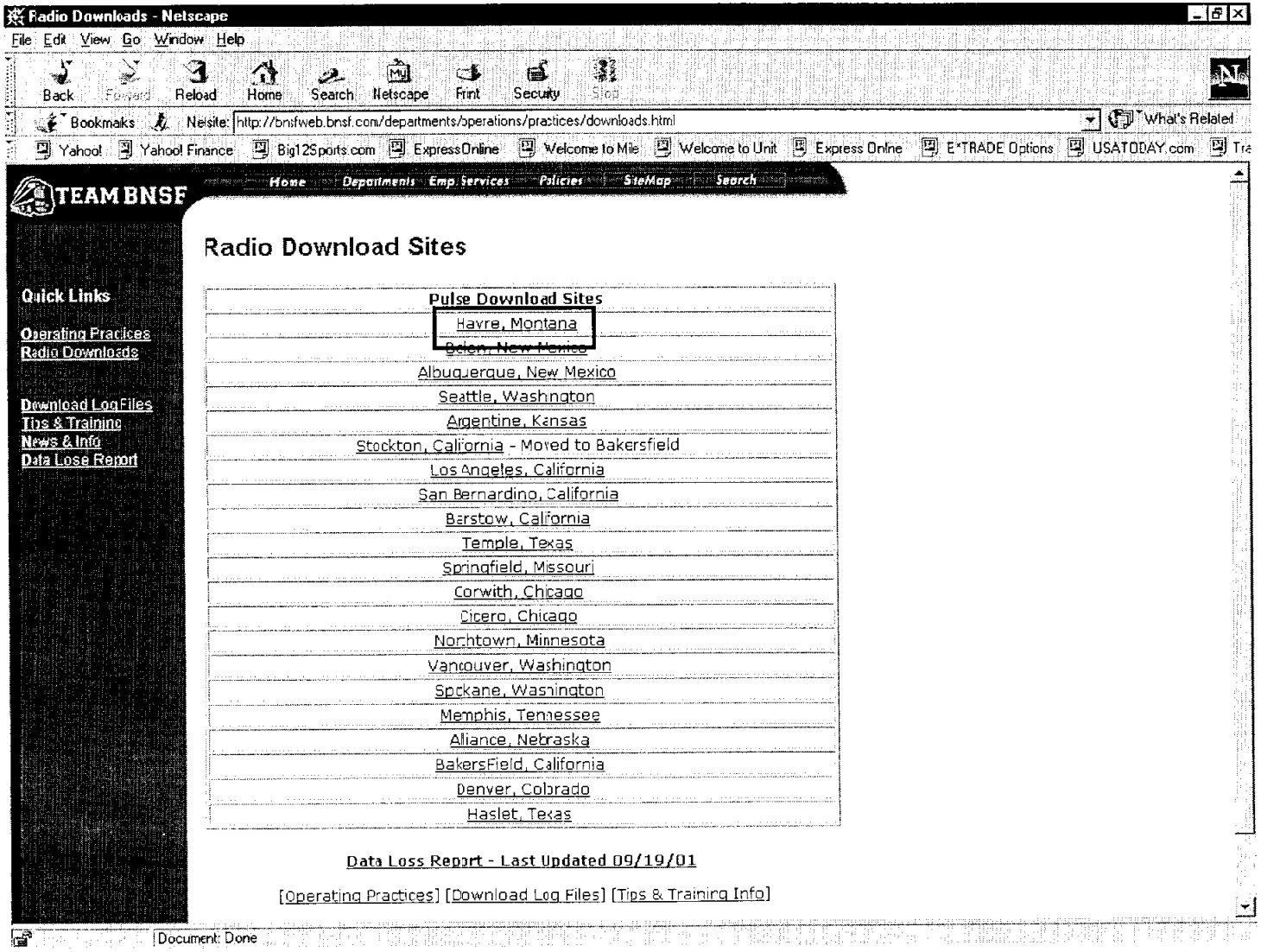
Locomotives With Wireless Download Event Recorders

• C40-8W & C44-9W (Qtron) -	94
• C44-9W (Wabtec) -	1,340
• SD70MAC (Wabtec) -	85
Total:	1,519

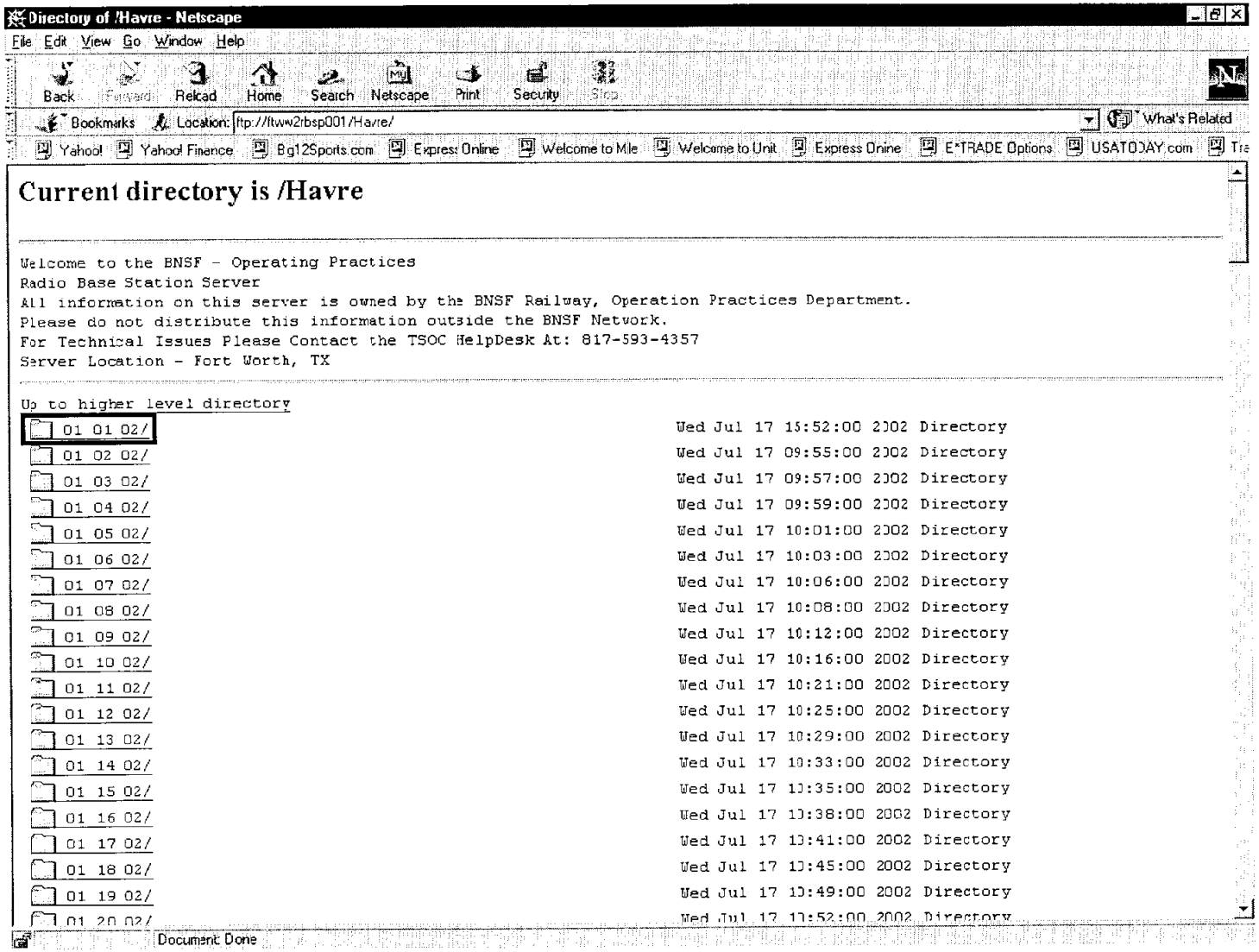
BNSF Operating Practices Intranet Web Page



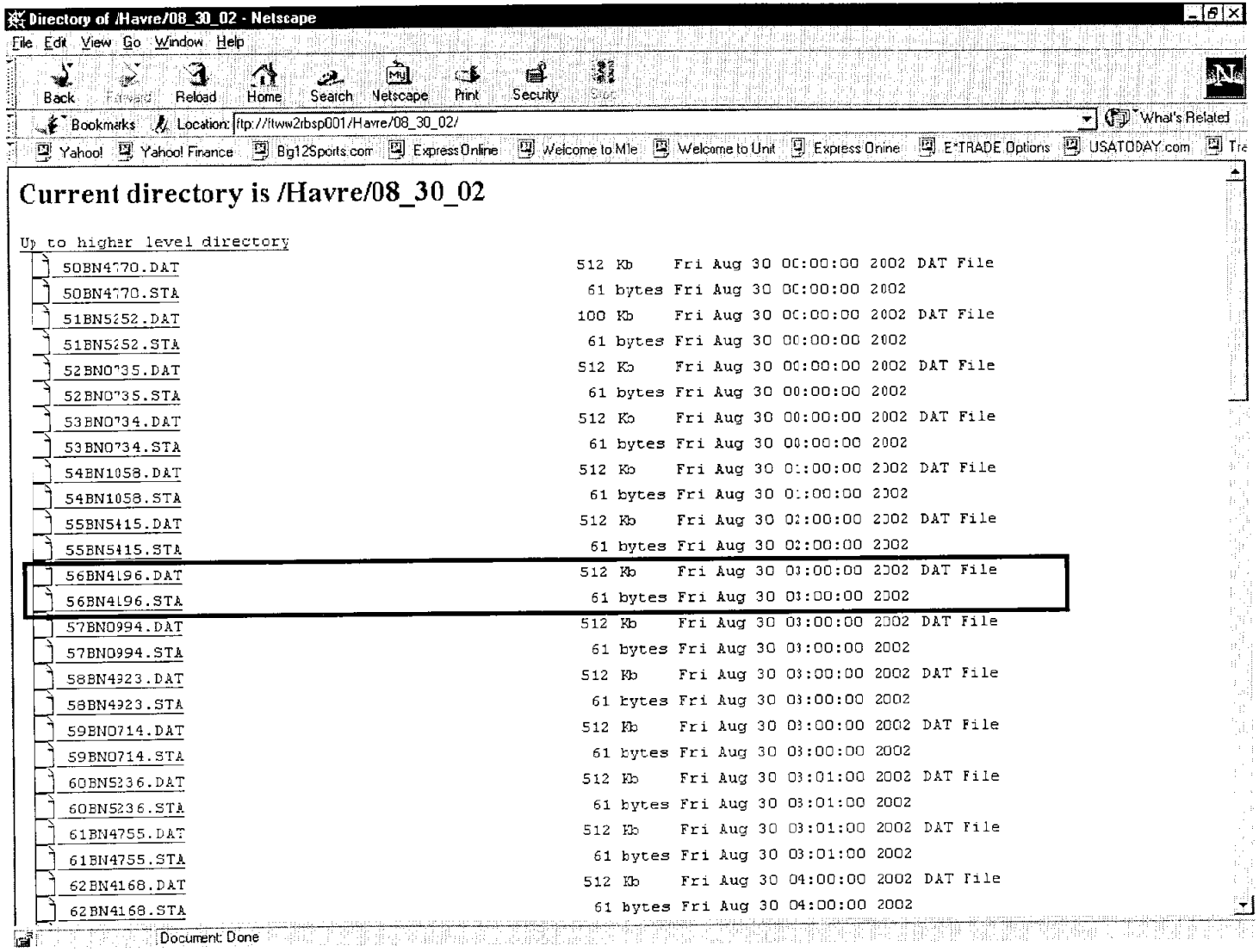
Accessing Wireless Download Data
Go To Base Station Location ID



Downloads Grouped by Date



Two-Part File for Each Download (.dat & .sta)



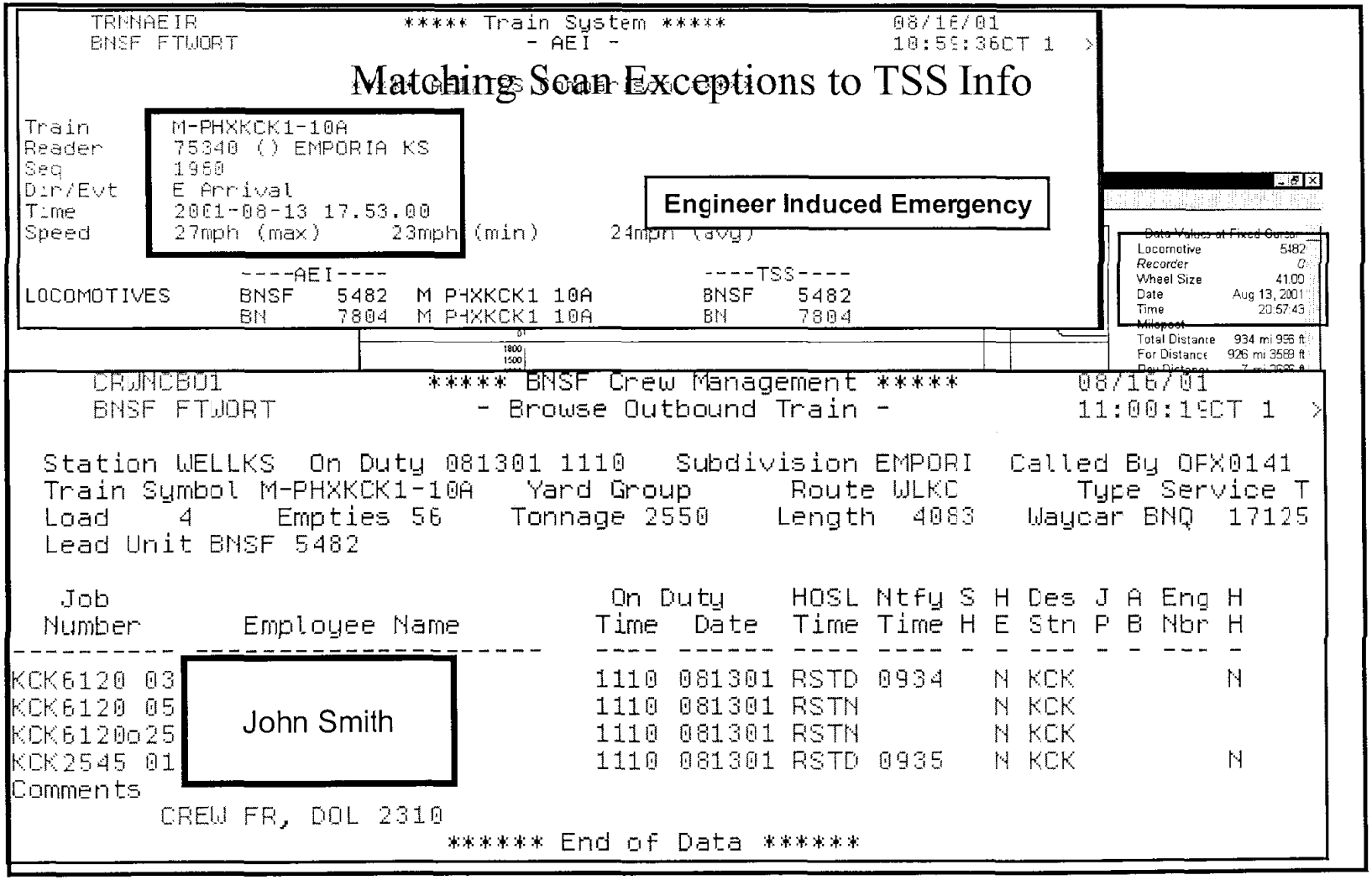
"Custom Scans"
(Exceptions found by Computer)

DATA SCAN RESULTS TABLE

Locomotive 1067 Wheel Size 39.00 WRE DAS

Condr induced emerg Emergency = CVE and Auto Brake > 10 and Speed > 0	Matches 0	Total Time 0:00:00:00
Engr Induced Emerg	Matches 1	Total Time 0:00:00:03
Ind Brake > 10 MPH Speed > 10 and Ind Brake > 1	Matches 26	Total Time 0:00:05:05
PCS Open Moving	Matches 1	Total Time 0:00:00:03
Power Braking > 20 MPH	Matches 4	Total Time 0:00:00:14
Speed > 60 MPH > 10 secs	Matches 0	Total Time 0:00:00:00
Speed > 63 MPH Speed > 63	Matches 0	Total Time 0:00:00:00
Stall > 2 mins Load > 100 and Speed = 0 (Min Time = 120)	Matches 0	Total Time 0:00:00:00

Manual Process of Matching Exceptions Found to Engineer/Train

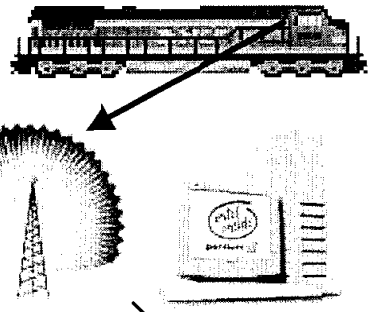


Automating Custom Scans

AutoScan

Automation - Download Exception & Matching to Train-Engineer-Location

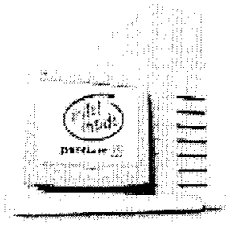
1. Locomotive automatically downloads to base station PC when within one mile



22 Base Stations (Connected to BNSF Network)

TSS database

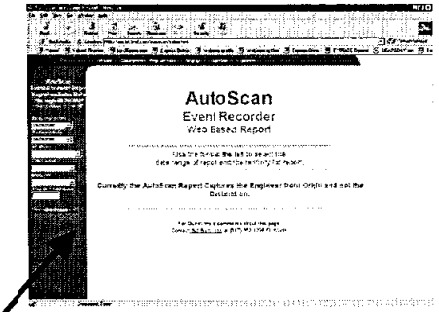
2. Ft Worth Server receives all downloads from all base station PC's every hour.



3. OP server, using AUTOSCAN, automatically scans previous day's downloads for train handling exceptions at 2:00 AM and sends to TSS database for matching train, engineer, location data

4. Exceptions, with matching train, engineer and location data posted to Operating Practices AutoScan web page for viewing.

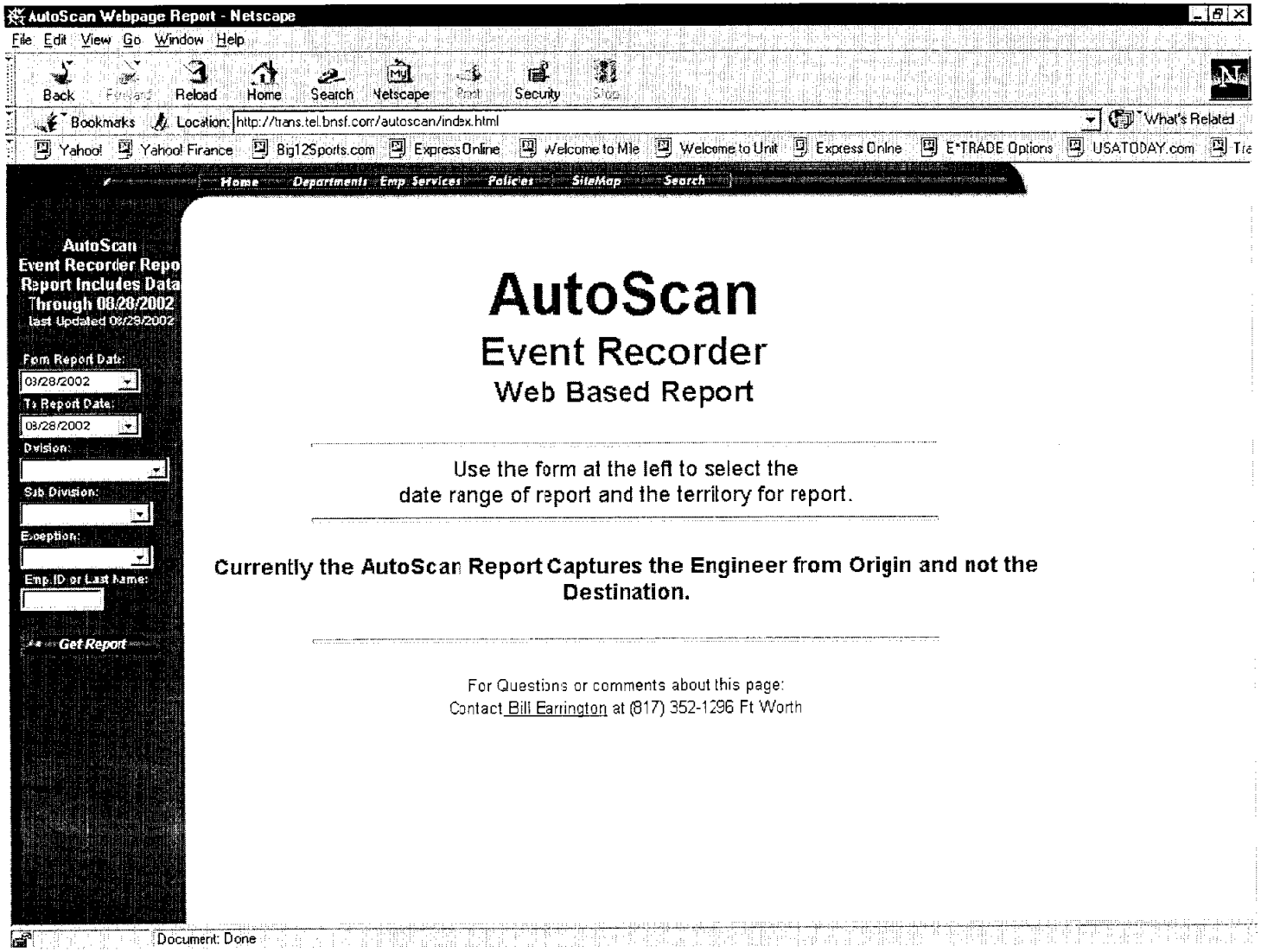
5. Road Foremen can access AutoScan web page for exception reports. Downloads are secured through the Operating Practices web page.



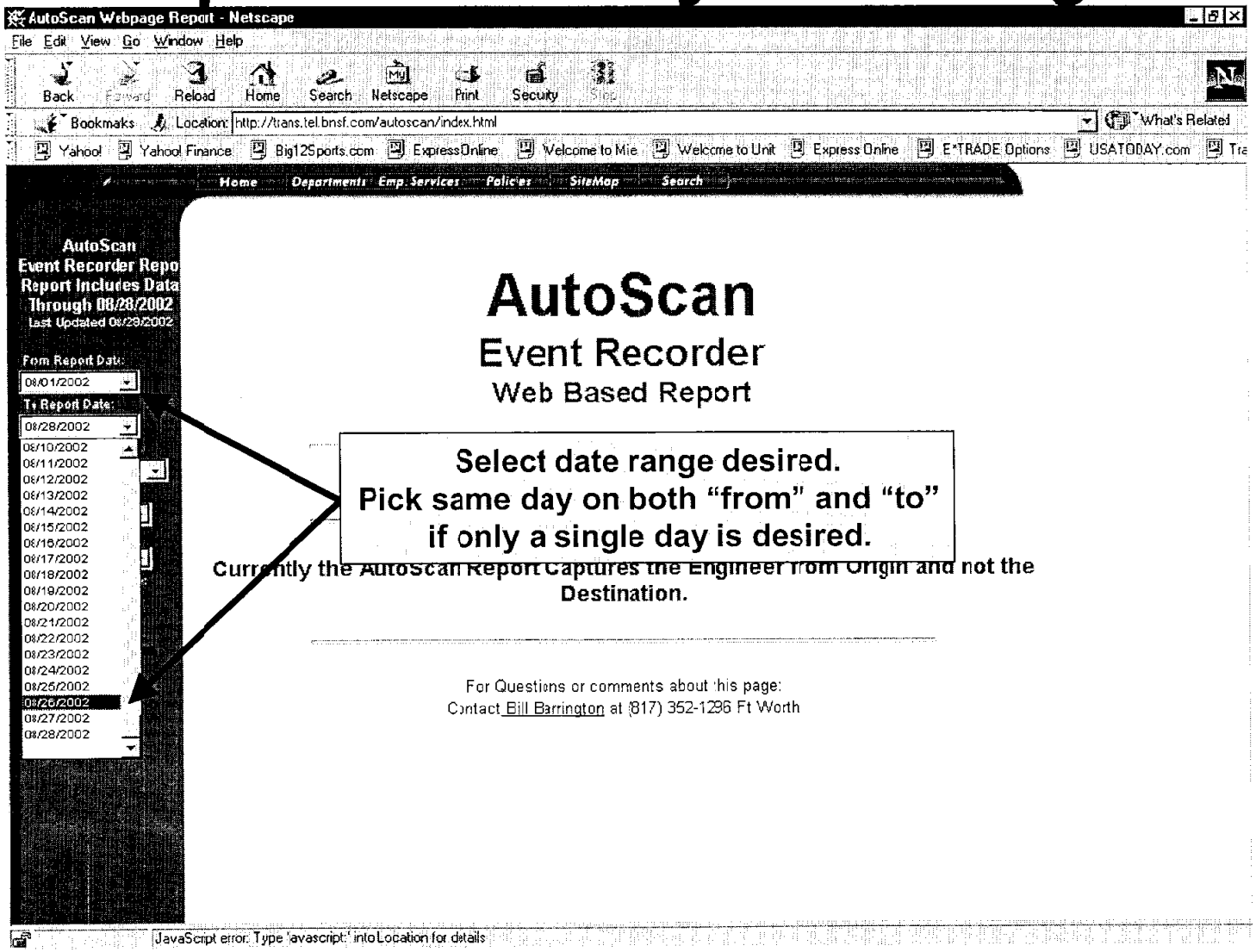
AutoScan Exceptions and Matching TSS Data

- AutoScan Output
  - Locomotive initial
  - Locomotive number
  - Exceptions
    - Engineer induced emergency application
    - Conductor induced emergency applications
    - Stretch braking at high throttle (Power braking)
    - Heavy reductions
    - Independent brakes use at high speed
    - Alertor penalty applications
    - Stalls (power with no movement for >2 minutes)
  - Duration of exception
  - Download data file ID
- TSS Matching Information
  - Engineer name
  - Engineer employee number
  - Train symbol
  - Engineer's departing:
    - Station
    - Time
    - Subdivision
    - Division
    - Number of cars
    - Tonnage
    - Length
    - HPT
    - Last station passed

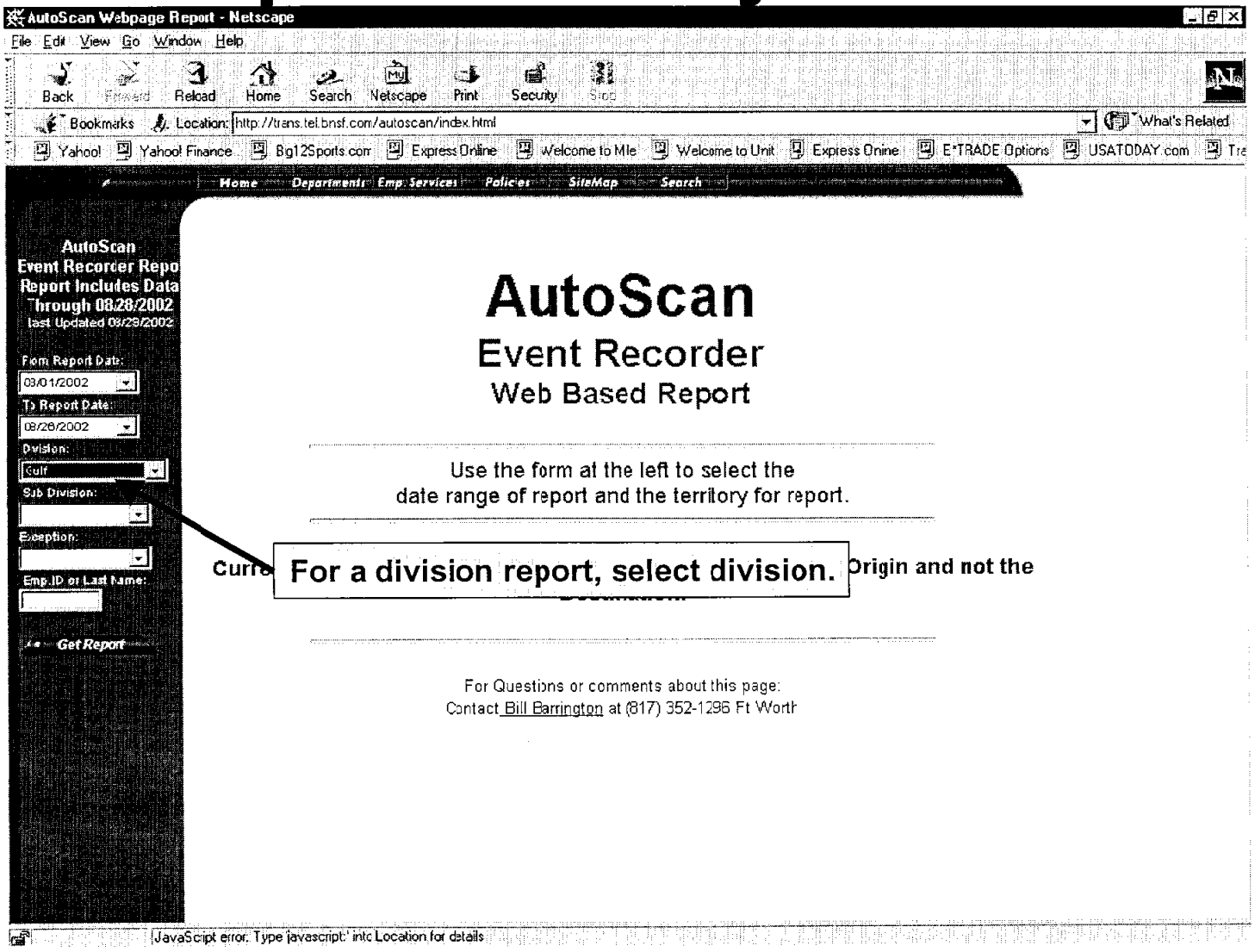
Accessing Exceptions through AutoScan Web Page



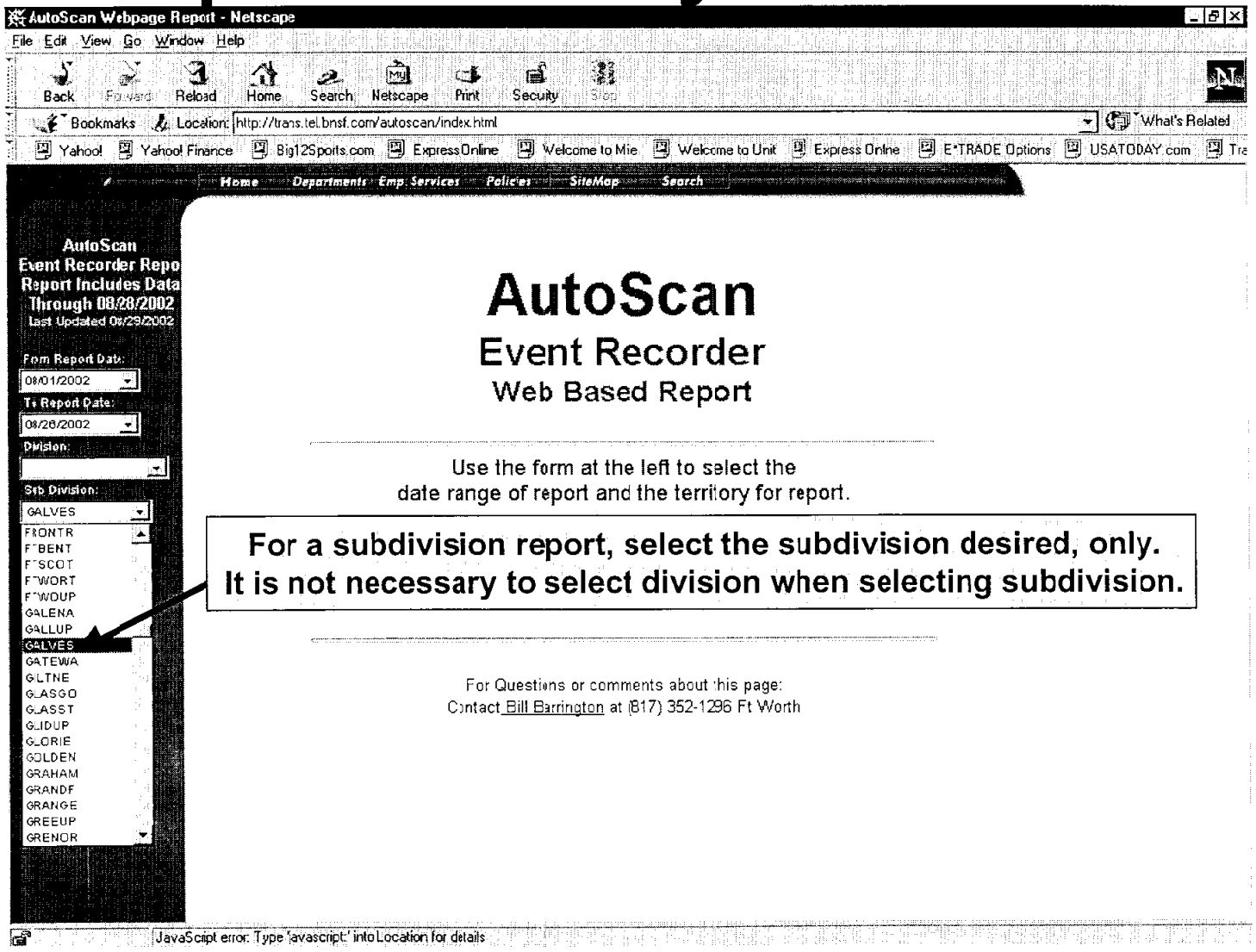
Report Defined by Date Range



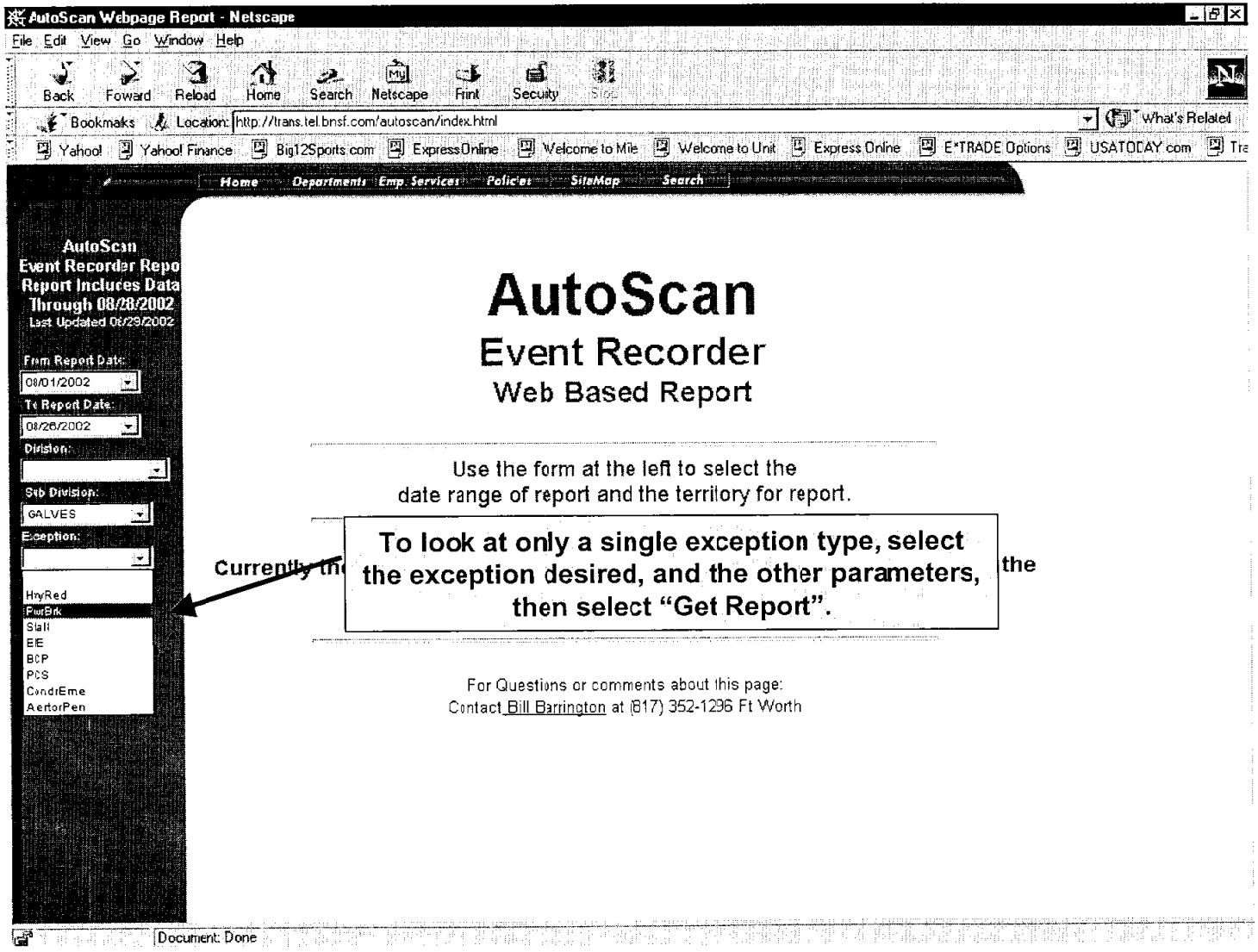
Report Defined by Division



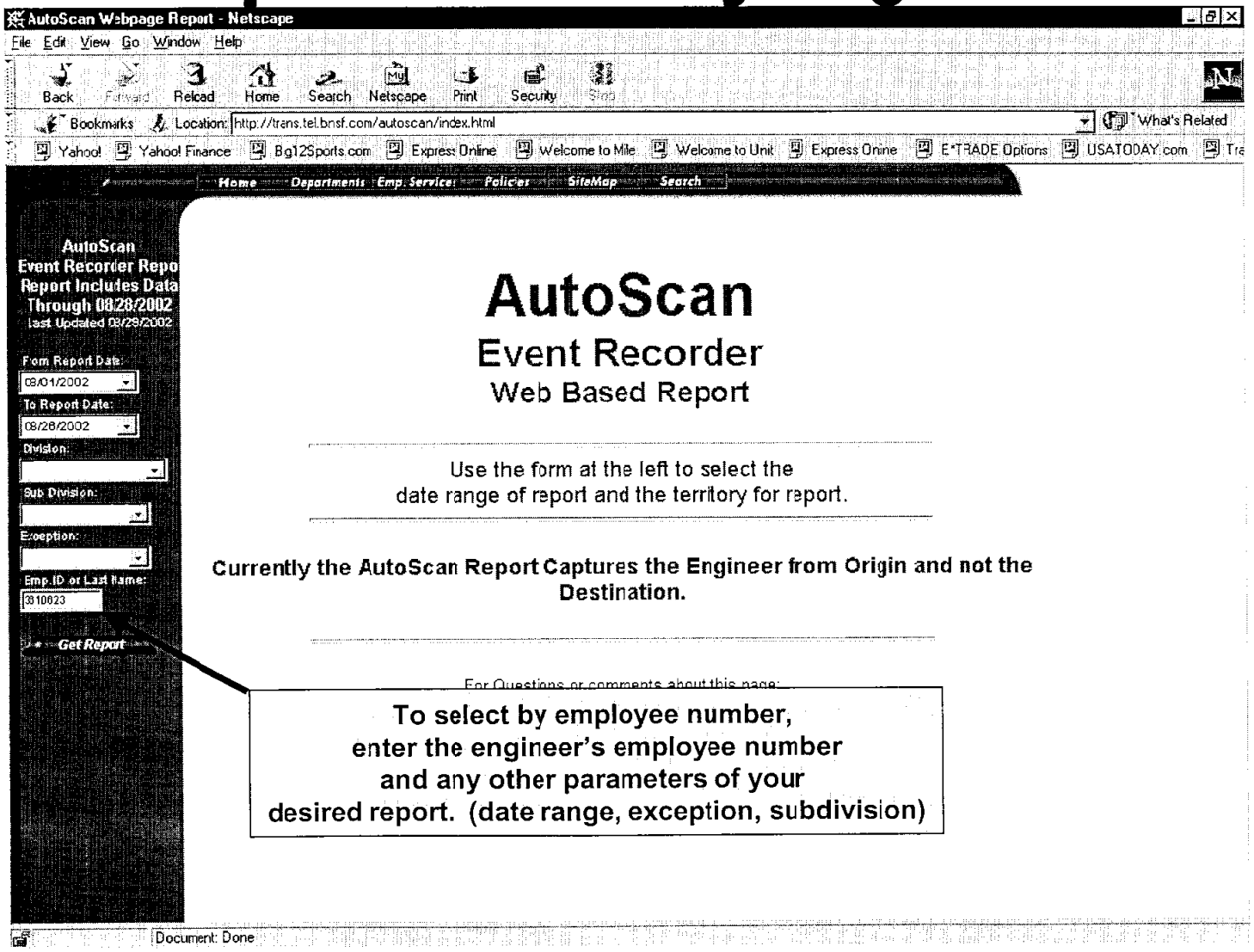
Report Defined by Subdivision



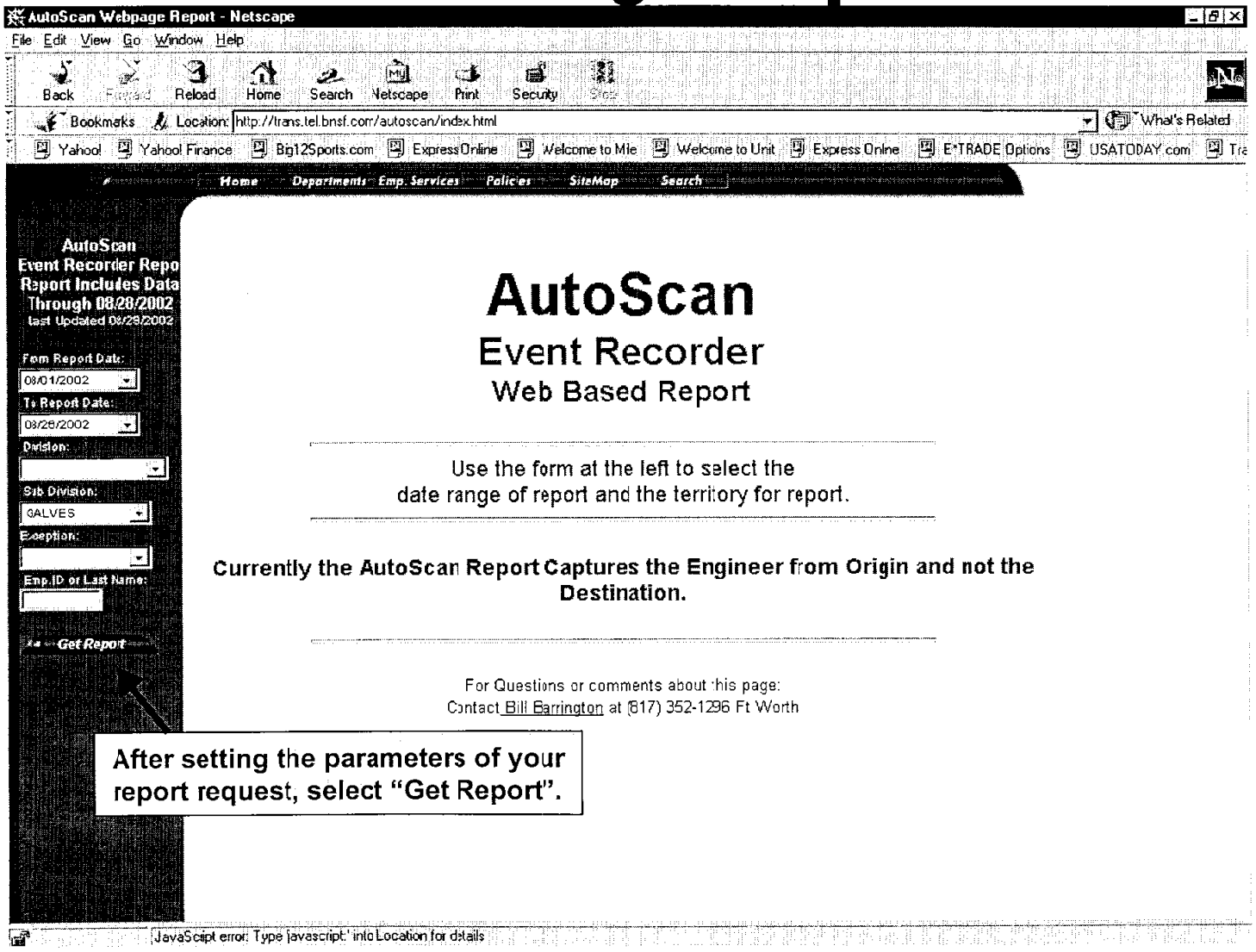
Report May be Defined by Individual Exceptions



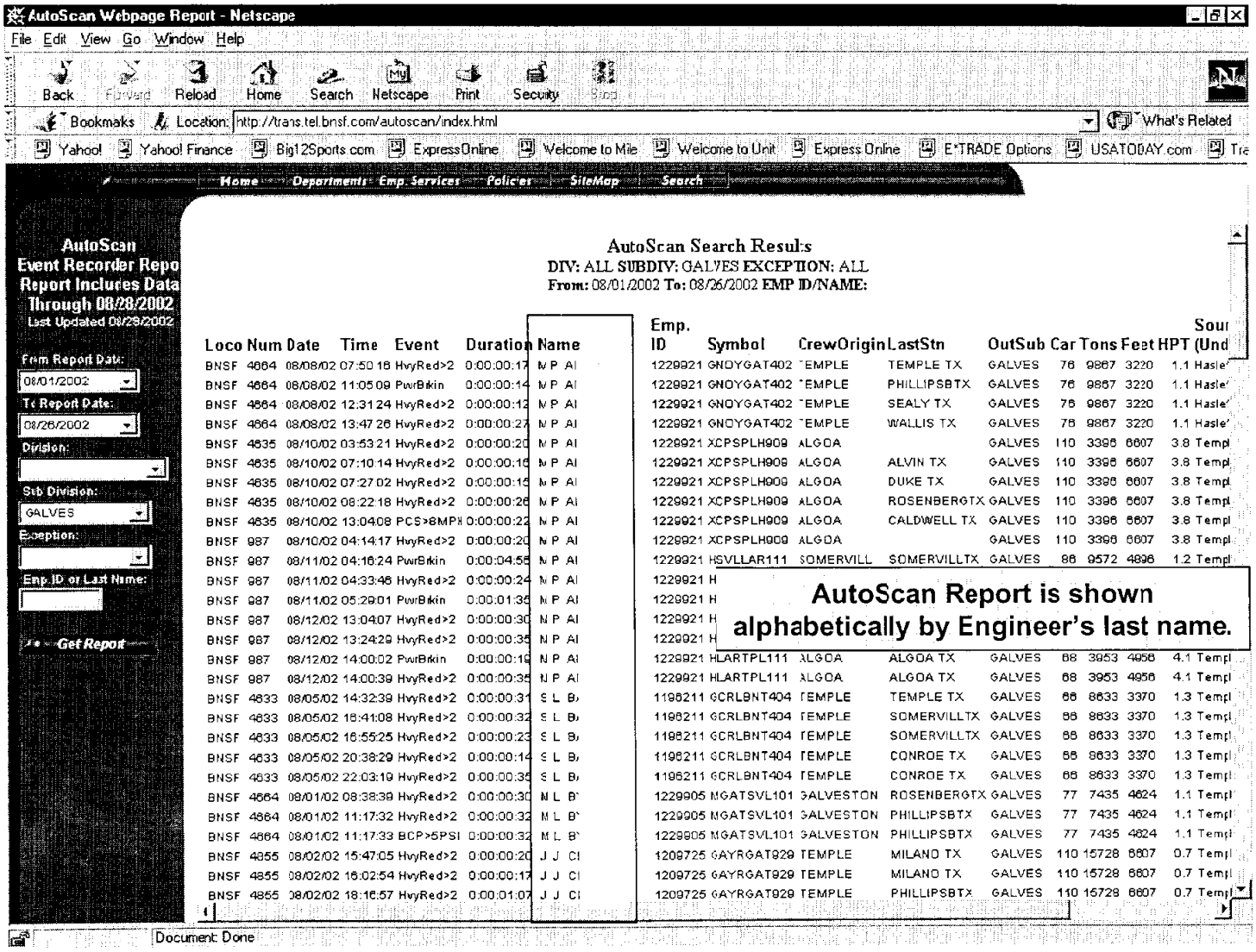
Report Defined by Engineer



Generating a Report



AutoScan Report



Other Uses of AutoScan in Development

- Develop additional exceptions
- Fuel monitoring
- Identifying End of Train Failure Locations
- Automated Operations Testing
  - Record compliance for stops made at the end of authority (red signals, track warrant limits, etc.)
  - Compliance with speed restrictions