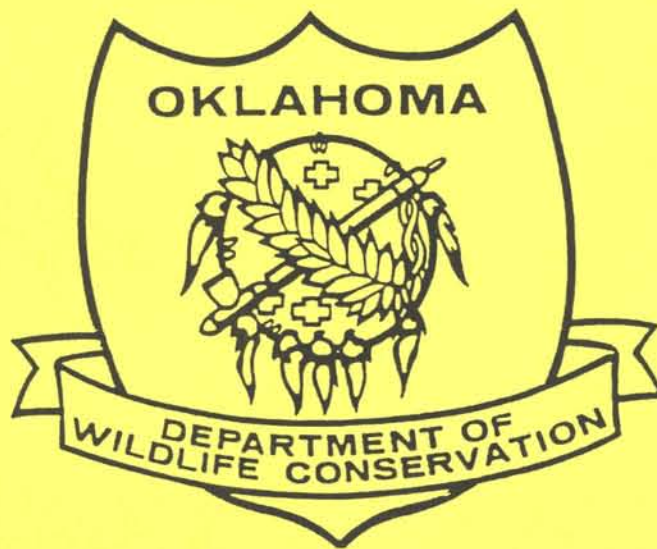


PERFORMANCE REPORT  
SECTION 6  
ENDANGERED SPECIES ACT



FEDERAL AID PROJECT E-21-10

Red-cockaded Woodpecker (*Picoides borealis*) Recovery  
on the McCurtain County Wilderness Area (MCWA)

APRIL 1, 2001 - MARCH 31, 2002

**ANNUAL PERFORMANCE REPORT****State:** Oklahoma**Project No:** E-21-10**PROJECT TITLE:** Red-cockaded woodpecker (RCW) (Picoides borealis)  
recovery on the McCurtain County Wilderness Area  
(MCWA)**I. PROGRAM NARRATIVE OBJECTIVE**

Recover the RCW population on the MCWA to 45 active clusters by implementing procedures outlined in the MCWA Implementation Plan

**II. JOB PROCEDURES****1. Monitoring**

- a. Locate, tag, and map new cavity trees within 300 yards of active clusters.
- b. Determine the status of each cavity tree and cluster, especially during the nesting period.
- c. Band adult and nestlings to obtain data on production, dispersal, and mortality and to aid in identifying single bird clusters that would benefit from augmentation.

**2. Cluster Stand Management**

- a. Reduce hardwood midstory and understory trees within 10 acre blocks adjacent to active clusters.
- b. Control the hardwood midstory within clusters by cutting and fire (controlled burns will be done under the Wildlife Restoration Act).

**3. Recruitment Stand Management**

Identify, mark, and control hardwoods within blocks of suitable habitat within ½ mile of active clusters.

#### **4. Corridors**

When needed and feasible, maintain or develop corridors among clusters and recruitment stands.

#### **5. Restrictors and Predator Guards**

- a. Place restrictors on RCW cavities to prevent enlargement by other woodpeckers and rehabilitate enlarged cavities.
- b. Install predator guards on all active cavity trees.
- c. Place squirrel guards on trees where flying squirrels have taken over cavities.

#### **6. Artificial Cavities**

Install cavity inserts in active clusters to provide at least 5 usable cavities at each site. Install 3 inserts at recruitment sites. When inserts at recruitment stands are activated, install 2 additional inserts.

#### **7. Augmentation**

Identify single bird clusters and move subadults to the sites from donor populations.

### **III. SUMMARY OF PROGRESS**

#### **1. Clusters**

In 2001, 11 clusters were active (Table 1., Fig. 1.). One or 2 cavities at cluster 5 were active during part of the year. The other clusters remained active through out the year, although cluster 109 became a single male site and was augmented.

During the period from 1997 through 2001, the number of active clusters varied between 11 and 12, which is a slight increase over the 9 that were active in 1992, when the recovery work began on the area.

#### **2. Cavity Trees**

Cavities at active clusters were checked at intervals of approximately 4 weeks throughout the year and cleaned and repaired as needed. In 2001, 27 of the 103 cavities available at clusters were natural and 76 were inserts (Table 2.). Over 70% of the natural cavities and 26% of the inserts were active.

During the year, 4 cavity trees were destroyed by southern pine beetles. Since 1997, 24 cavities were lost: 21 to southern pine beetle; 3 to wind throw; and 1 to lightening (Table 3.).

### 3. Restrictors and Predator Guards

All usable natural cavities at active and inactive clusters on the area have been restricted. All active cavity trees have been fitted with a 3 or 5 foot section of aluminum flashing (SNED) to deter snakes and other tree climbing predators. When a cavity tree without flashing at a recruitment stand or inactive cluster showed RCW activity, a SNED was added. In 2001, 6 restrictors and 7 SNEDS were installed.

### 4. Population

During the 2001 nesting season, 12 nesting attempts at 10 clusters produced 37 eggs. Three nests were lost before the nestlings reached banding age (5 to 7 days) and 2 after banding. All nest trees were fitted with SNEDS, and no evidence was found to suggest the cause or causes of these nest losses. Six nesting attempts were successful (which includes the 2 successful renestings) and 13 young were fledged. Eight of these juveniles were subsequently recaptured and color banded. (Table 4.)

During the 5 year reporting period, the number of nests initiations ranged from a low of 7 in 1997 to a high of 12 in 2001. The number of young fledged ranged from 9 in 1999 to 20 in 1998. The average fledging rate was 14 per year and 1.5 per nesting attempt.

Thirty-five juvenile RCW's were trapped and color banded during the period. Seventy-nine adults were also trapped (Table 5.).

### 5. Stand Management

In the current year, an additional 10 ac were thinned between clusters 111 and 112. During the 5 year period, approximately 100 acres were thinned adjacent to active clusters and 265 acres in corridors and foraging areas.

As summarized in Table 6, approximately 4,000 ac in compartments 1, 2, 3, and 6 were burned in April 2001. Another 1,476 ac of adjacent National Forest land were included in the burn. During the 5 year period, over 22,000 acres were burned on the area and additional 5,726 on adjacent National Forest. All active clusters and most R-stands were burned twice in the period.

Although 4 cavity trees were destroyed by southern pine beetles in 2001 and 21 during the 5 year period, overall beetle activity on the area was generally low. Beetle spots were widely scattered and usually encompassed less than 1 acre. Cooperative monitoring of the southern pine beetle population with the Oklahoma Division of Forestry also indicated that the beetle population has remained relatively low and the predator population high. Beetle monitoring



will continue in 2002.

## **6. Artificial Cavities**

During the year, 1 insert was installed at an active cluster. Since 1997, 33 inserts were installed at active clusters and 1 at an R-Stand to replace cavity trees or supplement cavities available. Also, 8 inserts were installed at 2 new R-Stands.

## **7. Corridors.**

No additional corridors, to connect clusters and recruitment stands and improve foraging habitat, were developed in 2001. During the 5 year period, approximately 265 acres were thinned in corridors and foraging areas.

## **8. Augmentation**

In 2001, Cluster 109 was augmented with a juvenile, female RCW provided by the Sam Houston National Forest. The bird was trapped on the evening of December 13, 2001 and released the following morning on the site. The cluster was monitored 4 times during the 3 months following the release, and this bird was present each time.

During the 5 year period, 5 pairs and 3 single juvenile, RCW's were released on the area (Table 7.). Eight translocated RCW's were captured in the period. During some years (e.g. 1998 and 2000), RCW's translocated in previous years comprised approximately 1/3 of the breeding adults present at the clusters.

## **9. Other Activities**

No road or trail construction occurred on the area. Approximately 8 to 9 miles of interior roads were graded each year to provide fire guards. One controlled deer hunt and one controlled turkey hunt were conducted each year. Monitoring of the clusters in the hunt areas indicated that these activities caused no apparent adverse effects to the RCW's.

## **IV CONCLUSIONS**

This project has been effective at halting the decline of the RCW population on the MCWA and stabilizing it at 11 to 12 clusters and should be continued for the next 5 years. The primary factor which may have limited the growth of the population is the thick hardwood mid- and understory that existed on much of the area. The extensive thinning projects that are planned on the area and on the adjacent National Forest will improve the RCW's habitat on several hundreds of acres and help alleviate this condition.

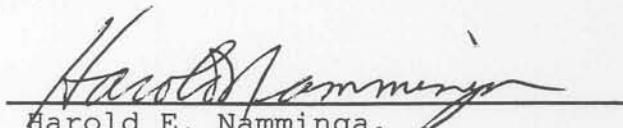
These increased acres of improved habitat coupled with the ongoing recovery work may provide the conditions the population needs to initiate significant growth.

**V. DEVIATIONS**

None.

**VI. Prepared by:** John Skeen, Senior Biologist

**VII. Date:** April 11, 2002

**VIII. Approved by:**   
Harold E. Namminga,  
Federal Aid/ Research Coordinator

Large quantities of ...  
...  
...

...

...

...

...

...

TABLE 1. CLUSTER STATUS FROM 1997 TO 2001

YEAR	1997	1998	1999	2000	2001
CLUSTER					
2	A	A	A	A	A
5	A*	A*	A	A*	A
12	A	A	A	A	A
16	A	A	A	A	A
31	A	A	A	A	A
32	A	A	A	A	A
105	A	A	A	A	A
107	A	A	A	A	A
109	A	A	A	A	A
111	A	A	A	A	A
112	A	A	A	A	A
137	A	A*	I	I	I
321	I	I	A*	A*	I
NO. ACTIVE	12	11	12	12	11

A = ACTIVE DURING YEAR

A\* = ACTIVE BUT WITH ONLY SINGLE BIRD FOR ENTIRE YEAR

I = INACTIVE DURING YEAR



TABLE 2. NUMBER AND STATUS OF NATURAL CAVITIES AND INSERTS AT ACTIVE CLUSTERS FROM 1997 THROUGH 2001.

YEAR	NO. NATURAL CAVITIES   NO. ACTIVE					NO. INSERTS   NO. ACTIVE				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
CLUSTER										
2	0 0	0 0	0 0	0 0	0 0	5 3	5 3	6 3	6 3	6 3
5	0 0	0 0	0 0	0 0	0 0	5 1	5 1	6 2	6 1	6 2
12	7 3	5 3	5 2	5 3	5 4	3 0	4 1	5 0	5 0	5 0
16	1 1	1 0	0 0	1 1	1 1	5 1	5 0	6 3	6 2	6 2
31	5 3	5 3	5 2	5 2	4 2	6 1	6 1	6 1	5 0	5 0
32	3 3	1 1	1 1	2 1	2 1	8 1	8 3	7 3	6 2	7 2
105	2 0	2 0	2 0	2 1	1 1	6 4	5 4	7 4	7 3	7 5
107	3 2	4 2	4 2	5 3	5 2	4 1	4 1	4 1	4 0	5 1
109	3 1	3 1	2 1	2 1	2 2	4 3	4 2	5 2	5 2	5 2
111	5 2	5 3	4 2	4 2	5 5	6 0	6 1	7 3	6 0	6 0
112	3 2	3 2	1 1	1 1	2 1	6 1	6 2	7 3	7 2	7 3
137	3 2	1 0	0 0	0 0	0 0	6 1	7 1	7 0	7 0	7 0
321	0 0	0 0	0 0	0 0	0 0	5 0	5 0	5 1	5 1	4 0
TOTALS	35 19	30 15	24 11	27 15	27 19	69 17	70 20	78 26	75 16	76 20

TABLE 3. CAVITY TREE MORTALITY DURING PAST 5 YEARS

YEAR	NUMBER AND CAUSE
1997	9 - SOUTHERN PINE BEETLE
1998	3- WIND THROW AND 1 - LIGHTENING
1999	5- SOUTHERN PINE BEETLE
2000	3- SOUTHERN PINE BEETLE
2001	4- SOUTHERN PINE BEETLE
<b>TOTAL</b>	<b>24</b>

YEAR	1997	1998	1999	2000	2001	TOTAL	CAUSE
1997	9	0	0	0	0	9	SOUTHERN PINE BEETLE
1998	0	3	1	0	0	4	WIND THROW AND LIGHTENING
1999	0	0	5	0	0	5	SOUTHERN PINE BEETLE
2000	0	0	0	3	0	3	SOUTHERN PINE BEETLE
2001	0	0	0	0	4	4	SOUTHERN PINE BEETLE
TOTAL	9	3	5	3	4	24	

EDWIN L. JONES, JR., UNIVERSITY OF MISSISSIPPI, MISSISSIPPI STATE UNIVERSITY, MISSISSIPPI  
 39762-0001, MISSISSIPPI STATE UNIVERSITY, MISSISSIPPI 39762-0001

SHEET 4 OF 4 MISSISSIPPI STATE UNIVERSITY, MISSISSIPPI 39762-0001

TABLE 4. MCWA NESTING RESULTS FROM 1997 TO 2001.

CLUSTER	1997				1998				1999				2000				2001			
	NESTING ATTEMPTS	EGGS LAID	* BANDED / PRESENT	NESTLINGS FLEDGED	NESTING ATTEMPTS	EGGS LAID	* BANDED / PRESENT	NESTLINGS FLEDGED	NESTING ATTEMPTS	EGGS LAID	* BANDED / PRESENT	NESTLINGS FLEDGED	NESTING ATTEMPTS	EGGS LAID	* BANDED / PRESENT	NESTLINGS FLEDGED	NESTING ATTEMPTS	EGGS LAID	* BANDED / PRESENT	NESTLINGS FLEDGED
2	0	0	0/0	0	1	4	1/2	2	0	0	0/0	0	1	4	1/2	2	1	3	0/0	0
5	0	0	0/0	0	0	0	0/0	0	0	0	0/0	0	0	0	0/0	0	0	0	0/0	0
12	0	0	0/0	0	1	3	2/2	2	1	4	1/1	0	1	4	1/2	2	1	4	1/3	2
16	0	0	0/0	0	0	0	0/0	0	0	0	0/0	0	1	3	0/1	1	1	4	3/3	0
31	1	4	2/2	2	1	4	3/3	3	1	3	0/1	1	1	4	1/2	2	1	4	3/3	2
32	1	4	2/3	3	1	3	2/2	2	1	3	1/1	1	1	3	2/2	1	2	6	0/2	2
105	1	4	0/0	0	1	3	1/3	3	1	3	1/1	1	1	3	3/3	2	1	1	0/1	1
107	1	4	3/3	2	1	4	1/3	3	1	4	3/3	0	1	4	2/2	2	2	5	0/1	1
109	1	4	1/2	2	0	0	0/0	0	1	3	1/1	1	1	4	2/2	2	1	3	2/3	0
111	1	4	2/2	2	1	4	2/3	3	1	4	3/3	3	1	3	2/2	2	1	4	3/3	3
112	0	0	0/0	0	1	4	0/0	0	2	3	2/2	2	1	4	1/2	0	1	3	3/3	2
137	1	4	1/1	1	1	4	1/3	2	0	0	0/0	0	0	0	0/0	0	0	0	0/0	0
TOTAL	7	28	11/13	12	9	33	13/21	20	9	27	12/13	9	10	36	15/20	16	12	37	15/22	13

\* THE NUMBER OF NESTLINGS BANDED / THE ACTUAL NUMBER OF YOUNG PRESENT IN THE NEST. SOMETIMES ALL NESTLINGS COULD NOT BE EXTRACTED AND BANDED.

TABLE 5. RCW'S TRAPPED AND BANDED ON THE MCWA FROM 1997 TO 2001

CLUSTER TRAPPED	BAND NUMBER	BAND COLORS		SEX	AGE WHEN TRAPPED	SITE FIRST BANDED	YEAR FIRST BANDED
		LEFT	RIGHT				
<b>2001</b>							
2	8081-99832	LbW	DgA	M	A	111	99
2	8081-99852	OA	LgP	F	A	109	00
12	8081-99808	WLb	LbA	M	A	31	97
12	8081-99862	PO	WA	M	J	12	01
12	8081-99878	PPu	WA	M	J	12	01
16	8081-99846	OA	LgDb	F	A	31	00
16	8081-99860	DgA	LbLg	F	J	111	01
32	1681-76325	YM	DpA	M	A	TX	99
32	8081-99803	YA	DgO	F	A	111	97
32	8081-99815	YW	OA	M	A	32	98
32	8081-99876	DgA	LbPu	F	J	32	01
32	8081-99877	DgA	LbO	F	J	32	01
105	8081-99825	YP	OA	M	A	105	98
107	49258	PDb	PA	M	A	111	93
107	8081-99842	DgA	LbW	F	A	105	00
107	8081-99850	PP	WA	M	A	107	00
107	8081-99874	DgA	LbY	F	J	107	01
107	8081-99875	DgA	LbP	F	J	107	01
109	1751-84956	OPu	AO	F	J	TX	02
109	8081-99812	WY	LbA	M	A	109	97
111	49287	BkY	LbA	M	A	109	96
112	8081-99837	YLp	WA	M	A	105	99
112	8081-99843	OA	LgLg	F	A	105	00
112	8081-99854	YP	WA	M	A	32	00
112	8081-99871	PW	WA	M	J	112	01
<b>2000</b>							
2	8081-99857	LbP	DgA	M	J	2	2000
2	8081-99845	OA	LgW	F	J	2	2000
2	8081-99832	LbW	DgA	M	A	111	99
12	49277	PA	DgY	F	A	32	95
12	8081-99808	WLb	LbA	M	A	31	97
16	49280	OA	BkLg	F	A	31	95
16	8101-27064	A	Db	M	A	TX	98
32	8081-99803	YA	DgO	F	A	111	97
32	1681-76325	YM	DpA	M	A	TX	99

32	8081-99815	YW	OA	M	A	32	98
32	8081-99846	OA	LgDb	F	J	31	2000
105	49233	PO	LgA	M	A	105	93
105	8081-99843	OA	LgG	F	J	105	2000
105	8081-84869	LbA	YW	F	A	TX	96
105	8081-99825	YP	OA	M	A	105	98
105	8081-99844	LbO	DgA	M	J	105	2000
107	8081-99848	OA	LgLb	F	J	111	2000
107	49214	YA	PLg	F	A	12	92
107	49268	DpDb	DpA	M	A	12	94
107	8081-99831	OA	LgDg	F	A	111	99
109	49288	PA	LbY	F	A	105	96
109	8081-99852	OA	LgP	F	J	109	2000
109	8081-99812	WY	LbA	M	A	109	97
111	8081-99847	OA	LgO	F	J	111	2000
111	8081-99858	LbPu	DgA	M	J	111	2000
111	49244	OA	BkLb	F	A	109	93
112	1631-60209	WA	LgDp	F	A	TX	98
112	8081-99837	YLp	WA	M	A	105	99
112	8081-99851	OA	LgPu	F	J	107	2000
<b>1999</b>							
2	8081-99823	YPu	OA	M	A	31	98
2	8081-99829	WA	PPu	F	A	105	98
16	8081-27064	A	Db	M	A	TX	98
16	49280	OA	BkLg	F	A	31	95
105	8081-84869	LbA	YW	F	A	TX	96
105	8081-99837	YP	WA	M	J	105	99
105	8081-99825	YLp	OA	M	A	105	98
109	8081-99812	WY	LbA	M	A	109	97
109	49288	PA	LbY	F	A	105	96
109	8081-99802	OA	BkY	F	A	137	97
109	8081-99838	YY	WA	M	J	109	99
111	49287	BkY	LbA	M	A	109	96
111	8081-99830	YA	OP	F	J	111	99
111	8081-99828	YA	OPu	F	A	137	98
112	8081-32467	BkY	MA	M	A	TX	95
112	8081-99801	YA	OY	F	A	137	97
112	8081-99840	YW	WA	M	J	112	99
<b>1998</b>							
2	8081-84834	LbA	YLg	F	A	TX	96
2	8081-99814	WM	LbA	M	A	2	97
2	8081-99827	WA	PY	F	J	2	98
12	49277	A	DgY	F	A	32	95
12	8081-99819	WA	PP	F	J	12	98
31	8081-32571	LbW	OA	M	A	LO	96
31	8081-99813	WLg	LbA	M	A	32	97
31	8081-99823	YPu	OA	M	J	31	98
31	8081-99823	YPu	OA	M	J	31	98
32	49280	OA	BkLg	F	A	31	95
32	8081-99815	YW	OA	M	J	32	98
105	49233	O	LgA	M	A	107	92
105	8081-84869	LbA	YW	F	A	TX	96
105	8081-99825	YP	OA	M	J	105	98
105	8081-99829	WA	PPu	F	J	105	98
107	49209	LgA	WO	F	A	21	92
107	49258	PDb	PA	M	A	111	93
109	49288	PA	LbY	F	A	105	96
109	8081-99812	WY	LbA	M	A	109	97
111	49244	OA	BkLb	F	A	109	93
111	49287	BkY	LbA	M	A	109	96
111	8081-99817	WA	PW	F	J	111	98



112	49271	A	Lb	F	A	109	94
112	49286	PA	LbW	F	A	109	96
112	8081-32467	BkY	MA	M	A	TX	95
137	8081-99816	YY	OA	M	J	32	98
<b>1997</b>							
2	49209	LgA	WO	F	A	21	92
5	8081-99814	LbA	YG	F	A	TX	96
16	49293	OA	BkLp	F	A	111	96
31	9081-99809	OA	BkW	F	J	31	97
31	8081-99808	WLb	LbA	M	J	31	97
32	8081-99813	WLg	LbA	M	J	32	97
32	49298	WW	LbA	M	A	32	96
32	49228	DgW	PuA	M	A	32	92
32	49280	OA	BkLg	F	A	31	95
109	8081-99812	WY	LbA	M	J	109	97
109	49285	OW	YA	F	A	109	96
111	49244	OA	BkLb	F	A	109	93
111	49276	LgPu	LgA	M	A	109	95
111	49287	BkY	LbA	M	A	109	96
112	8081-32467	BkY	PA	M	A	TX	95
112	49286	PA	LbW	F	A	109	96
112	8081-99802	OA	BkY	F	J	137	97
112	49277(1)	A	Lb	F	A	109	94

Year	Month	Day	Time	Location	Activity	Remarks
1952	Jan	1	10:00	...	...	...
1952	Jan	2	10:00	...	...	...
1952	Jan	3	10:00	...	...	...
1952	Jan	4	10:00	...	...	...
1952	Jan	5	10:00	...	...	...
1952	Jan	6	10:00	...	...	...
1952	Jan	7	10:00	...	...	...
1952	Jan	8	10:00	...	...	...
1952	Jan	9	10:00	...	...	...
1952	Jan	10	10:00	...	...	...
1952	Jan	11	10:00	...	...	...
1952	Jan	12	10:00	...	...	...
1952	Jan	13	10:00	...	...	...
1952	Jan	14	10:00	...	...	...
1952	Jan	15	10:00	...	...	...
1952	Jan	16	10:00	...	...	...
1952	Jan	17	10:00	...	...	...
1952	Jan	18	10:00	...	...	...
1952	Jan	19	10:00	...	...	...
1952	Jan	20	10:00	...	...	...
1952	Jan	21	10:00	...	...	...
1952	Jan	22	10:00	...	...	...
1952	Jan	23	10:00	...	...	...
1952	Jan	24	10:00	...	...	...
1952	Jan	25	10:00	...	...	...
1952	Jan	26	10:00	...	...	...
1952	Jan	27	10:00	...	...	...
1952	Jan	28	10:00	...	...	...
1952	Jan	29	10:00	...	...	...
1952	Jan	30	10:00	...	...	...
1952	Jan	31	10:00	...	...	...

TABLE 6. PRESCRIBED FIRES ON THE MCWA AND ADJACENT NATIONAL FOREST FROM 1997 THROUGH 2001.

YEAR	COMPARTMENTS	ACRES ON MCWA	ACRES ON NF
1997	5, 7, 8	4,026	500
1998	1, 2, 3, 6, 9	5,820	800
1999	8, 9, 10, 11	5,314	1,370
2000	4, 5, 7	3,425	1,580
2001	1, 2, 3, 6	4,002	1,476
<b>TOTAL</b>		<b>22,587</b>	<b>5,726</b>

TABLE 7. TRANSLOCATIONS TO THE MCWA FROM 1997 TO 2001

Band No.	COLORS		Sex	Year*	RELEASE	RELEASE	DONOR
	Left	Right			Site	Date	STATE
8101-26385	LbA	YDg	F	96	R2	2/20/97	LO
1581-24251	DbA	WLg	F	98	R19	10/5/98	TX
1581-24930	DpA	LbW	F	98	R21	10/5/98	TX
1581-24236	WA	LgLb	F	98	R5	10/8/98	TX
8101-27067	LgA	LpLb	F	98	R6	10/8/98	TX
1631-60209	WA	LgDp	F	98	R3	10/8/98	TX
1631-60242	WDp	YA	M	98	R19	10/5/98	TX
8101-27071	LgDb	LbA	M	98	R21	10/5/98	TX
1581-24279	DbA	DpDp	M	98	R5	10/8/98	TX
1581-24160	WA	MM	M	98	R6	10/8/98	TX
8101-27064	A	Db	M	98	R3	10/8/98	TX
1681-76325	YM	DpA	M	99	R21	9/28/99	TX
1751-84956	OPu	AO	F	01	109	12/14/01	TX

\* RECRUITMENT YEAR





