

# KIC 005811262

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005811262-01	OBS	No	2.085942	132.005251	386.7	9.623	9.3	12.2	0.73	5592	1.89	533.94
005811262-02	OBS	No	245.655352	221.389634	3920.8	11.816	9.7	7.6	0.73	5592	5.67	0.93
005811262-03	OBS	No	220.192778	343.804573	2701.5	5.650	11.3	7.9	0.73	5592	4.00	1.07
005811262-05	OBS	No	147.648087	260.055114	1301.1	6.000	9.9	-1.0	0.73	5592	2.62	1.82
005811262-07	OBS	No	303.883293	305.110974	2056.1	6.363	9.1	5.8	0.73	5592	3.83	0.70

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005811262-01	OBS	FP	0.00	1	0	0	0	LPP_DV
005811262-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
005811262-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005811262-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST
005811262-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

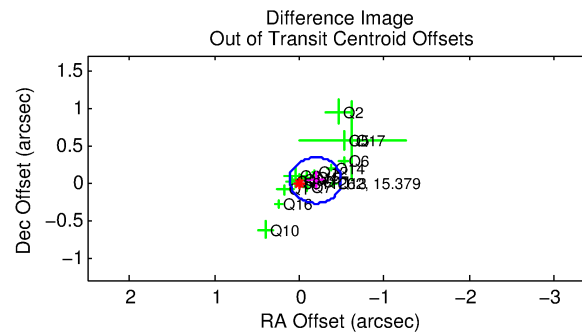
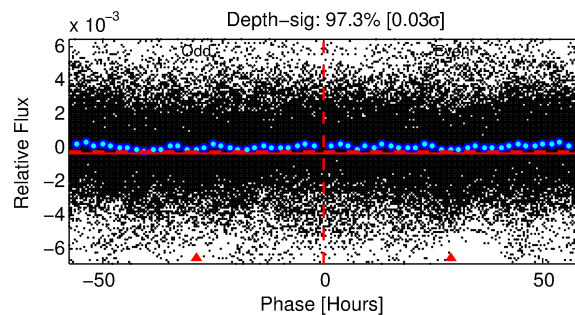
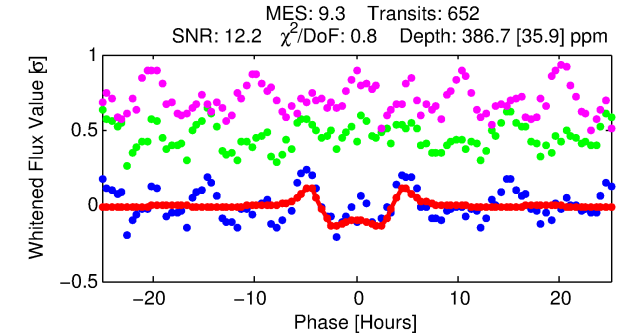
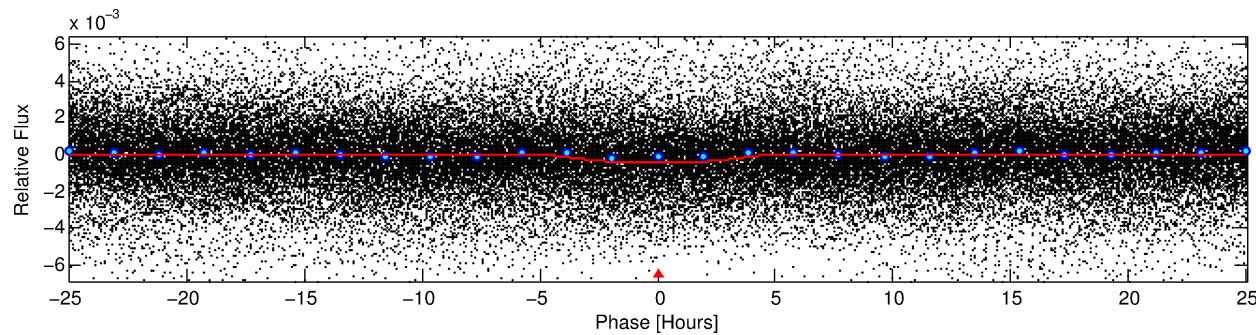
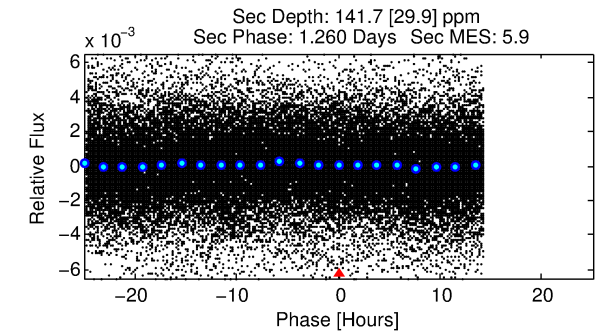
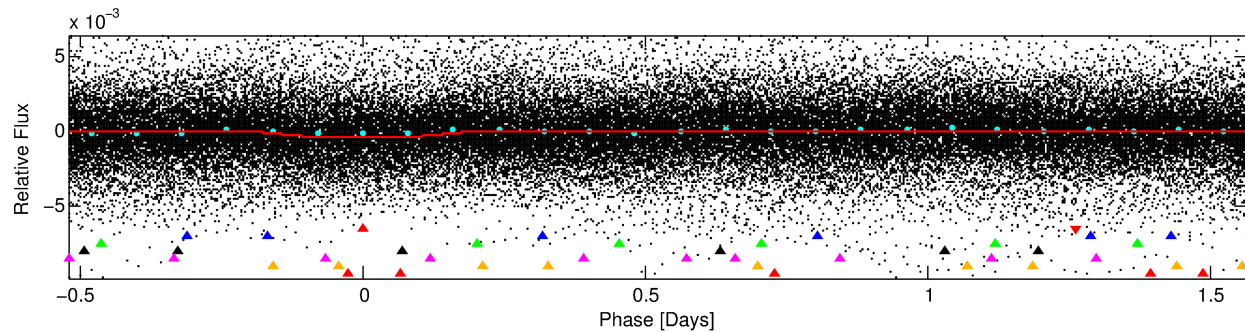
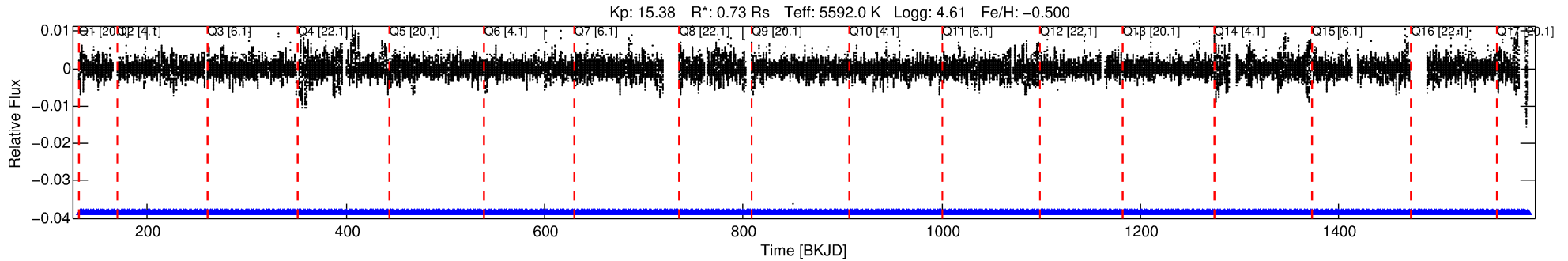
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005811262-01

No Significant Match Found

# DV One-Page Summary

KIC: 5811262 Candidate: 1 of 7 Period: 2.086 d



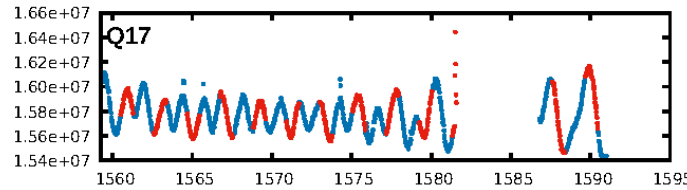
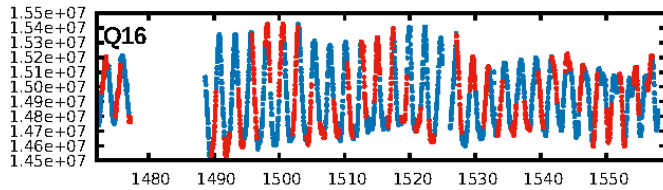
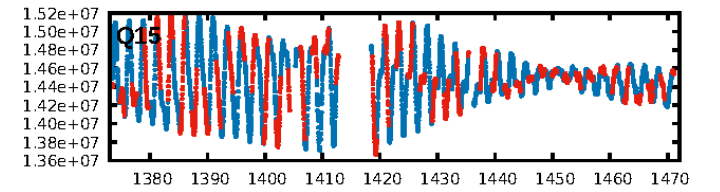
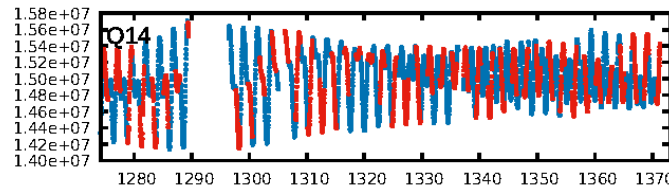
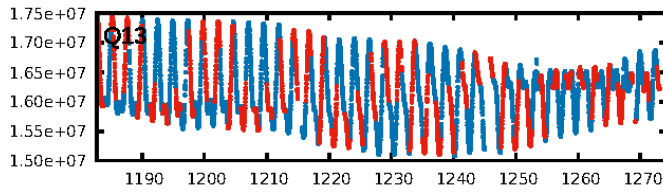
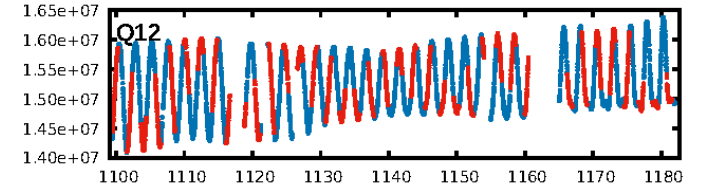
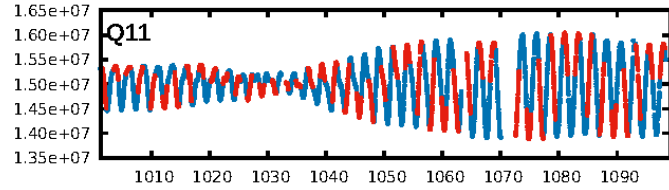
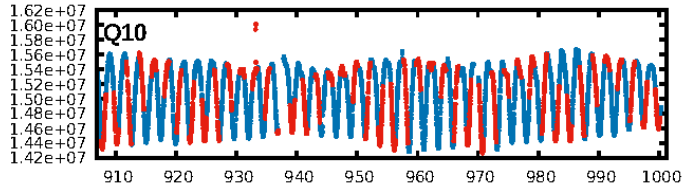
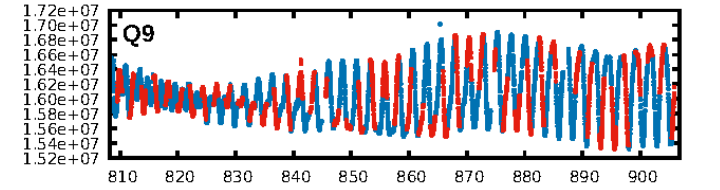
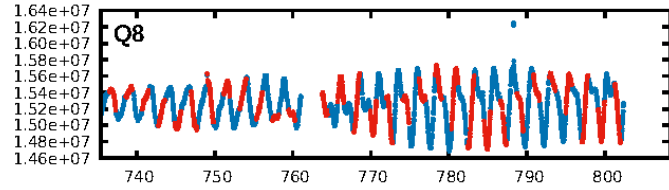
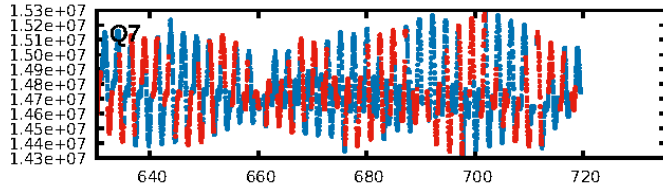
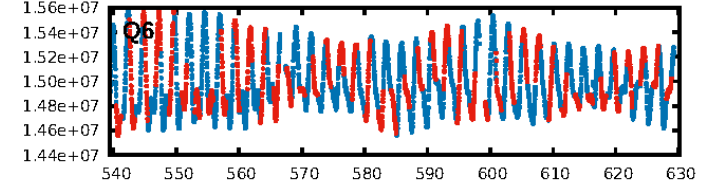
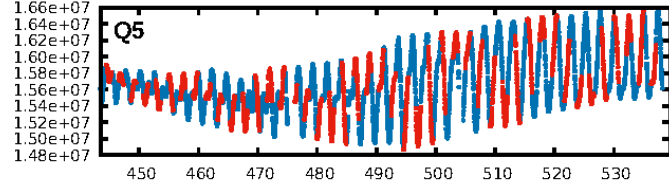
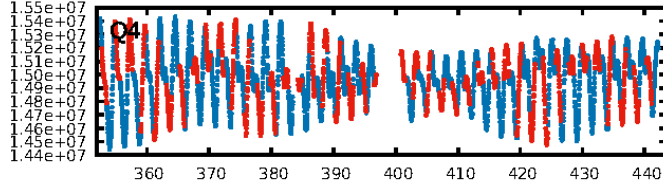
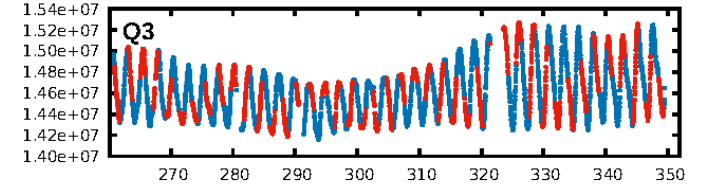
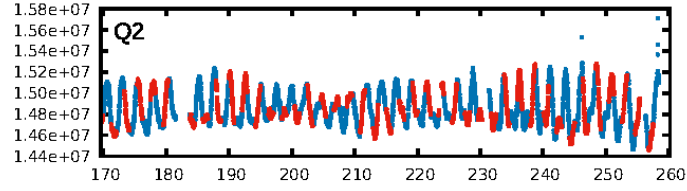
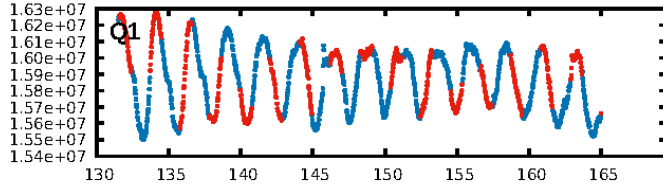
## DV Fit Results:

Period = 2.08594 [0.00002] d  
Epoch = 132.0053 [0.0061] BKJD  
Rp/R\* = 0.0236 [0.0011]  
a/R\* = 1.14 [0.02]  
b = 0.96 [0.00]  
Seff = 533.94 [142.52]  
Teq = 1226 [82] K  
Rp = 1.89 [0.39] Re  
a = 0.0297 [0.0050] AU  
Ag = 19.33 [6.44] [2.85σ]  
Teffp = 3974 [260] K [10.10σ]

## DV Diagnostic Results:

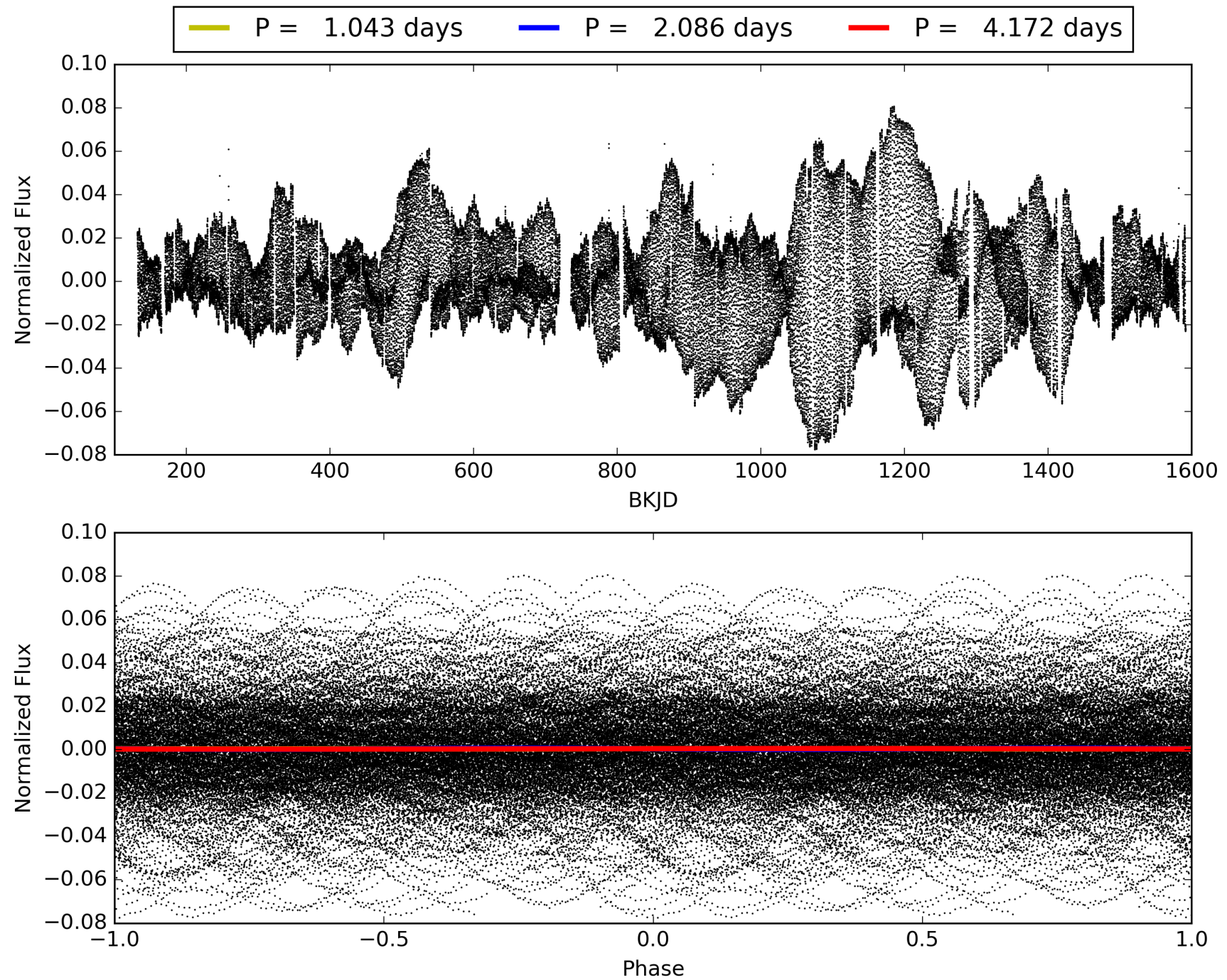
ShortPeriod-sig: N/A  
LongPeriod-sig: 100.0% [308.07σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
**Bootstrap-pfa: 1.58e-10**  
RollingBand-fgt: 1.00 [623/623]  
GhostDiagnostic-chr: 1.021  
**Centroid-sig: 0.0%**  
Centroid-so: 1.239 arcsec [2.36σ]  
OotOffset-rm: 0.195 arcsec [1.92σ]  
KicOffset-rm: 0.147 arcsec [1.16σ]  
OotOffset-st: 4/4/4/5 [17]  
KicOffset-st: 4/4/4/5 [17]  
DiffImageQuality-fgm: 0.35 [6/17]  
DiffImageOverlap-fno: 1.00 [17/17]

# TCE 005811262-01, PDC Light Curves





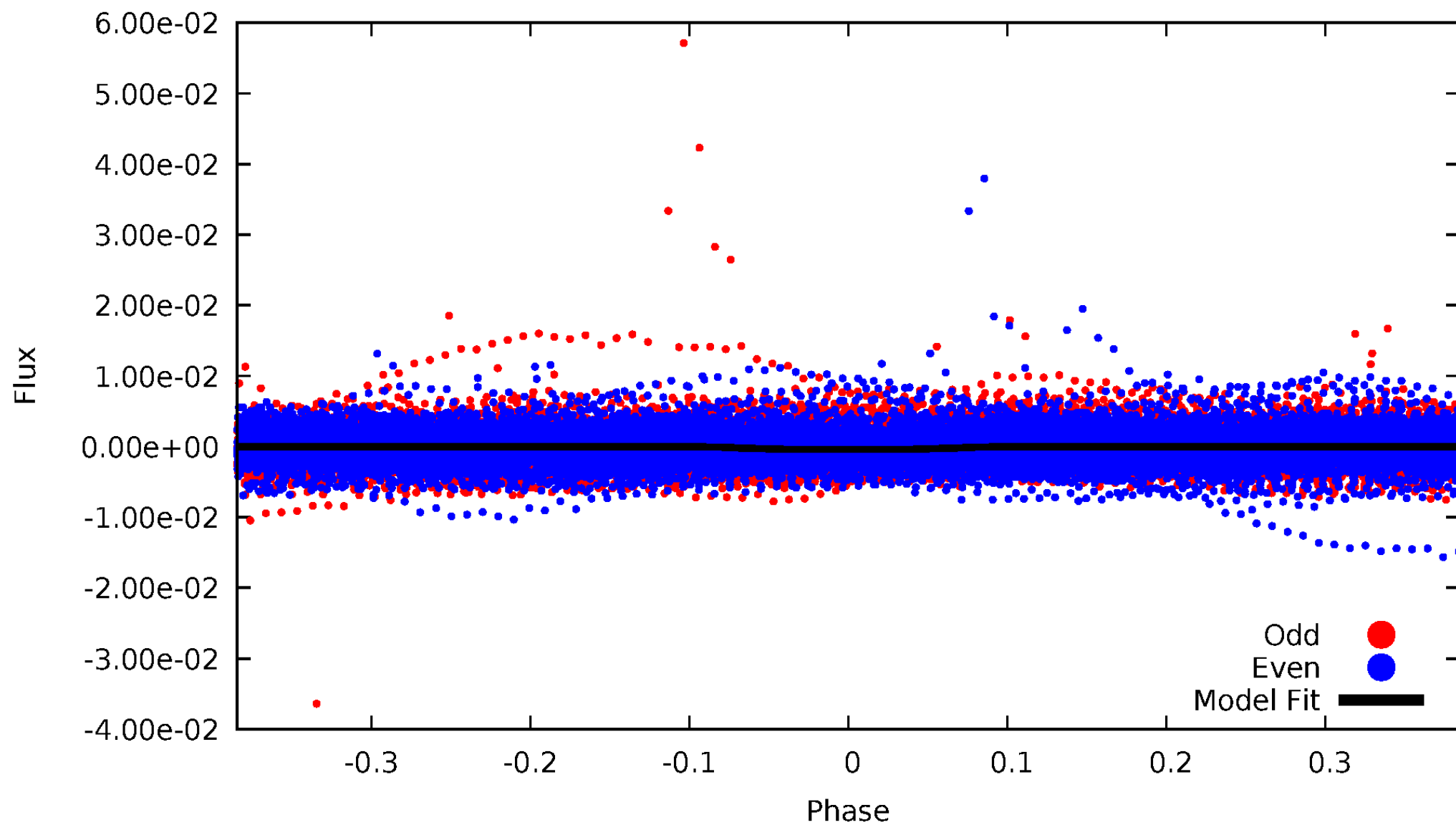
TCE 005811262-01





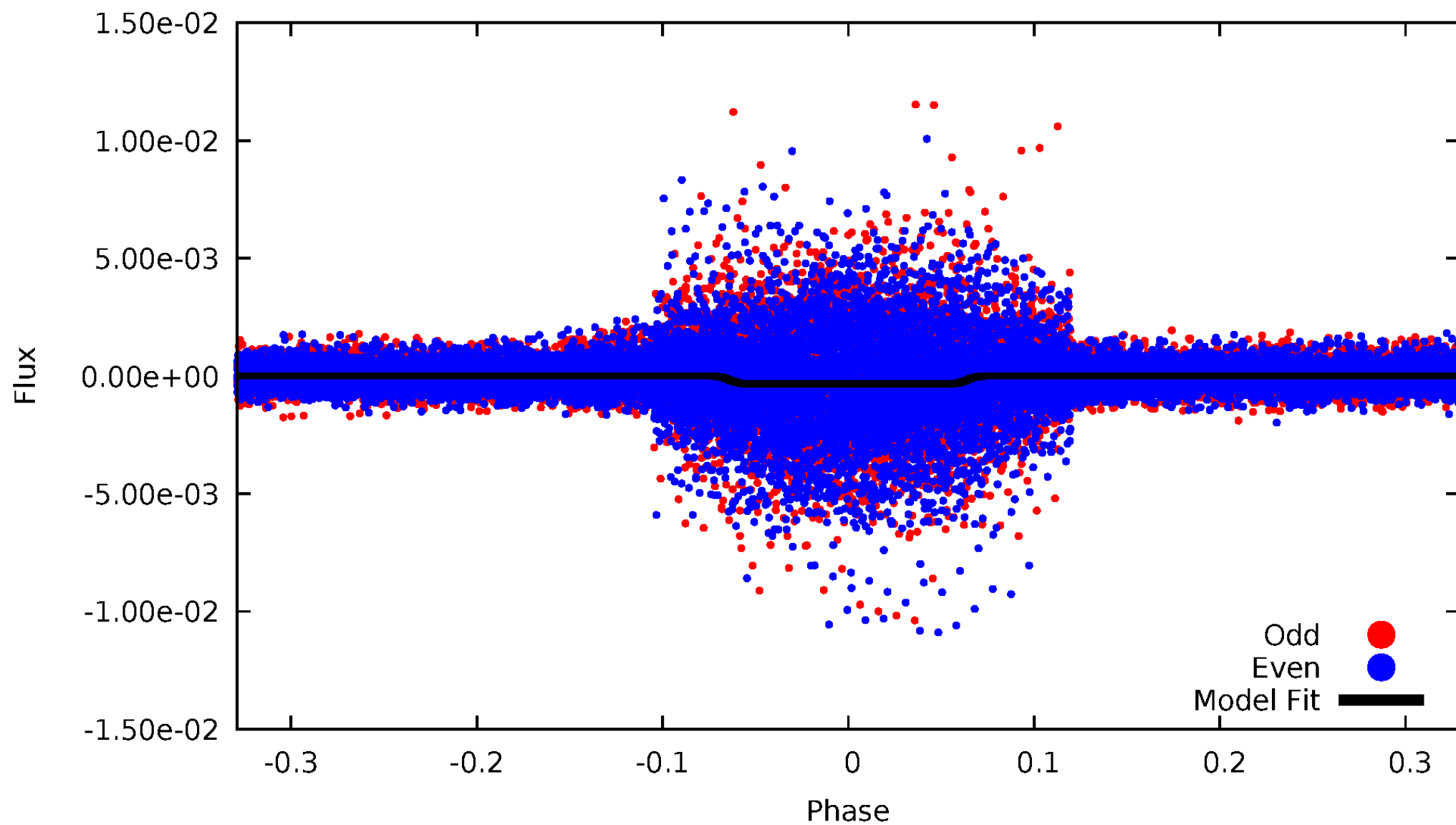
# DV Odd/Even

TCE 005811262-01



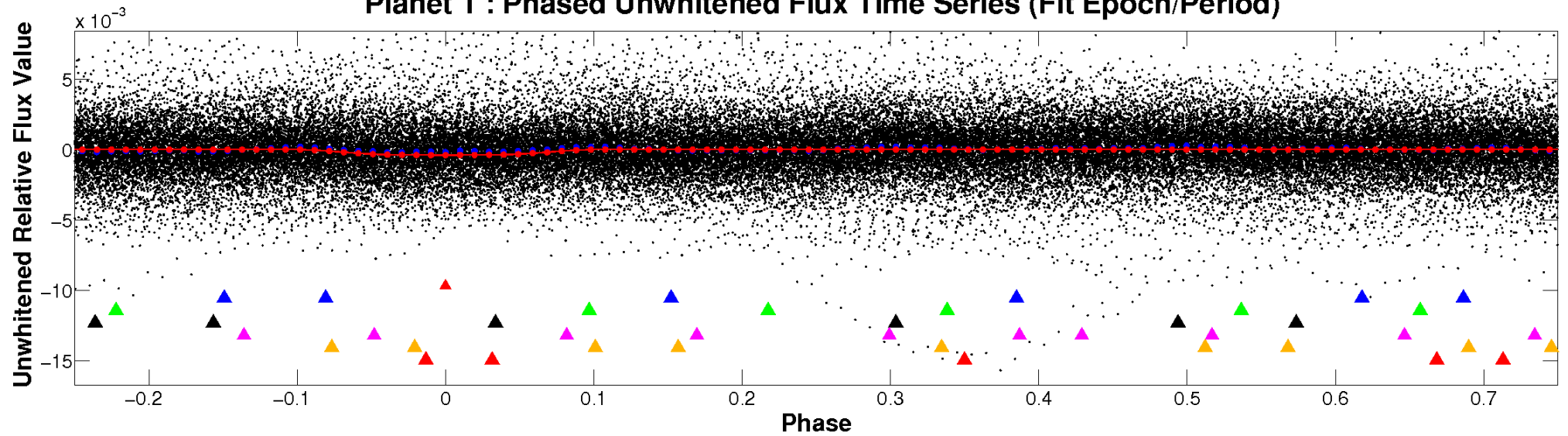
# ALT Odd/Even

TCE 005811262-01

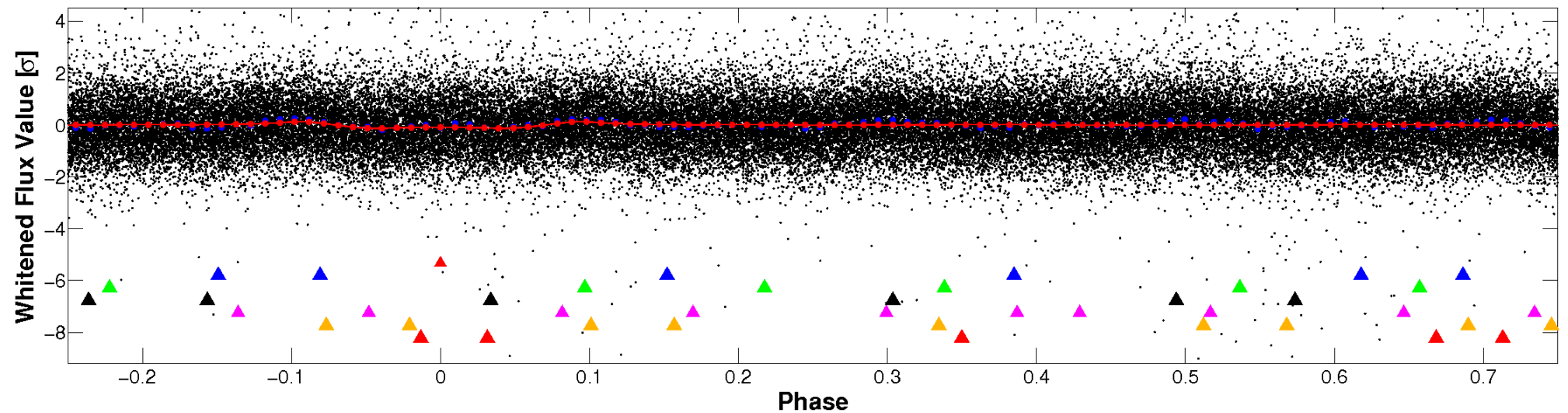


# Non-Whitened Vs. Whitened Light Curve

**Planet 1 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)**



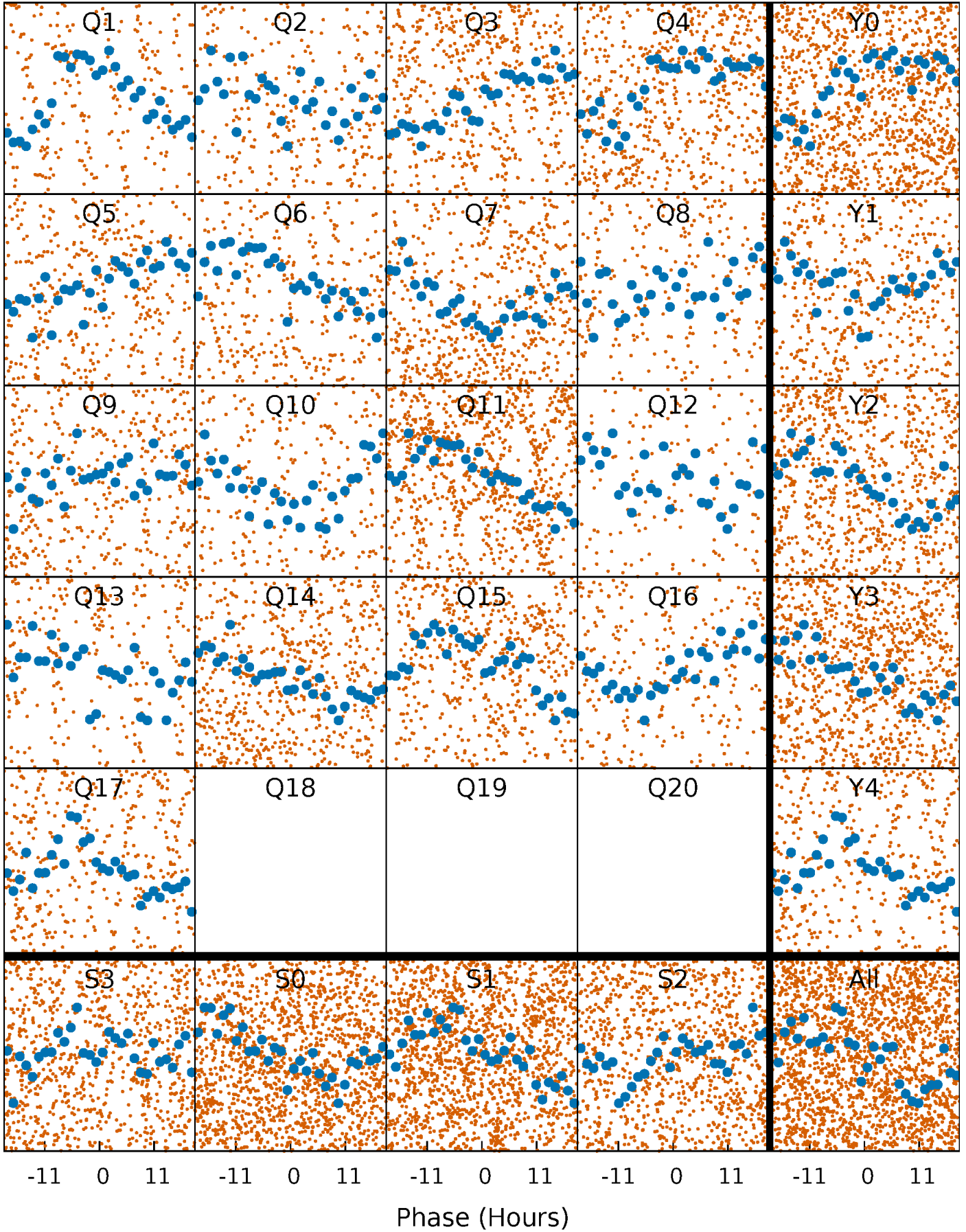
**Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)**





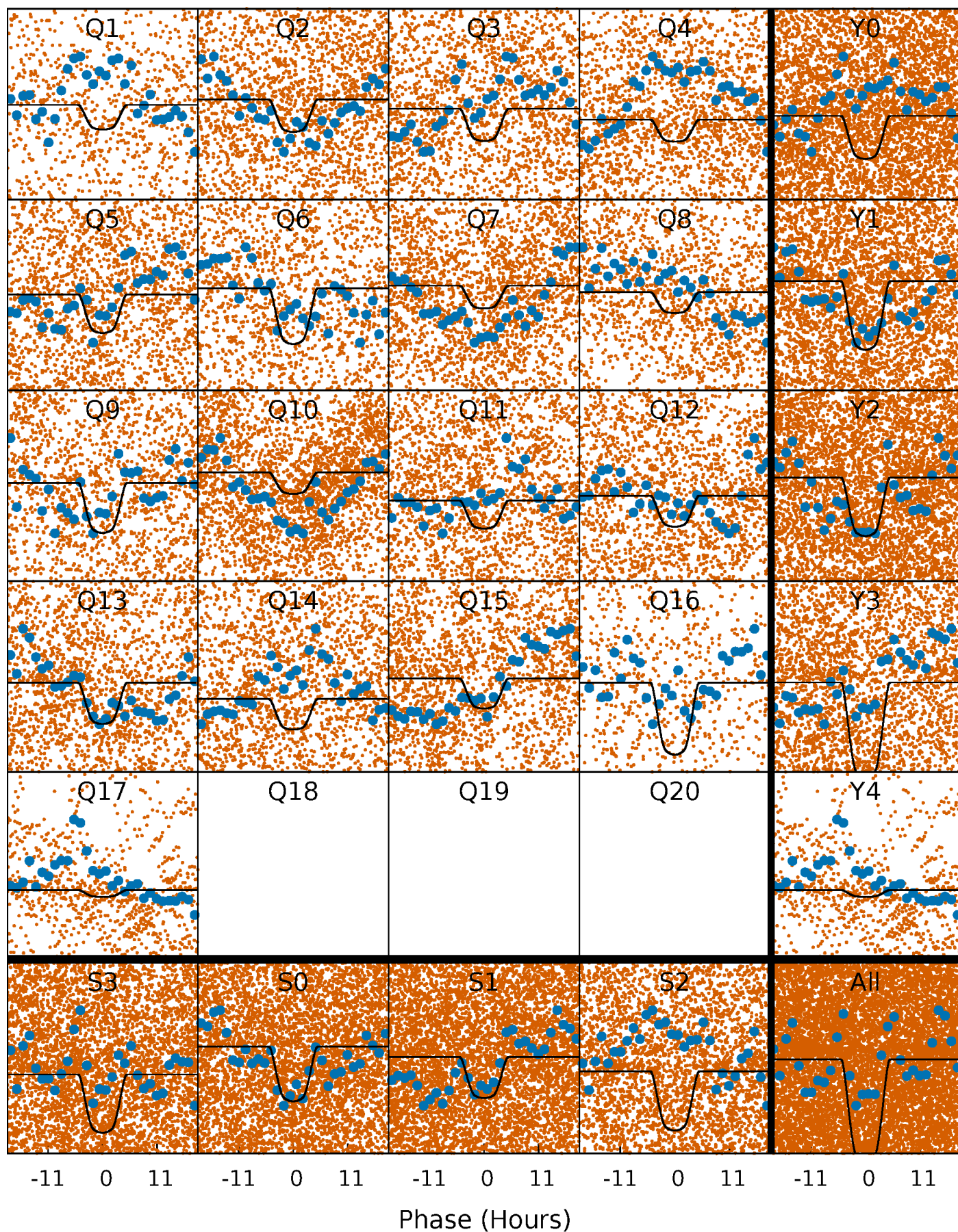
# PDC Quarter-Phased Transit Curves

TCE 005811262-01   P= 2.085942 Days    $T_0=132.005251$  (BKJD)



# DV Quarter-Phased Transit Curves

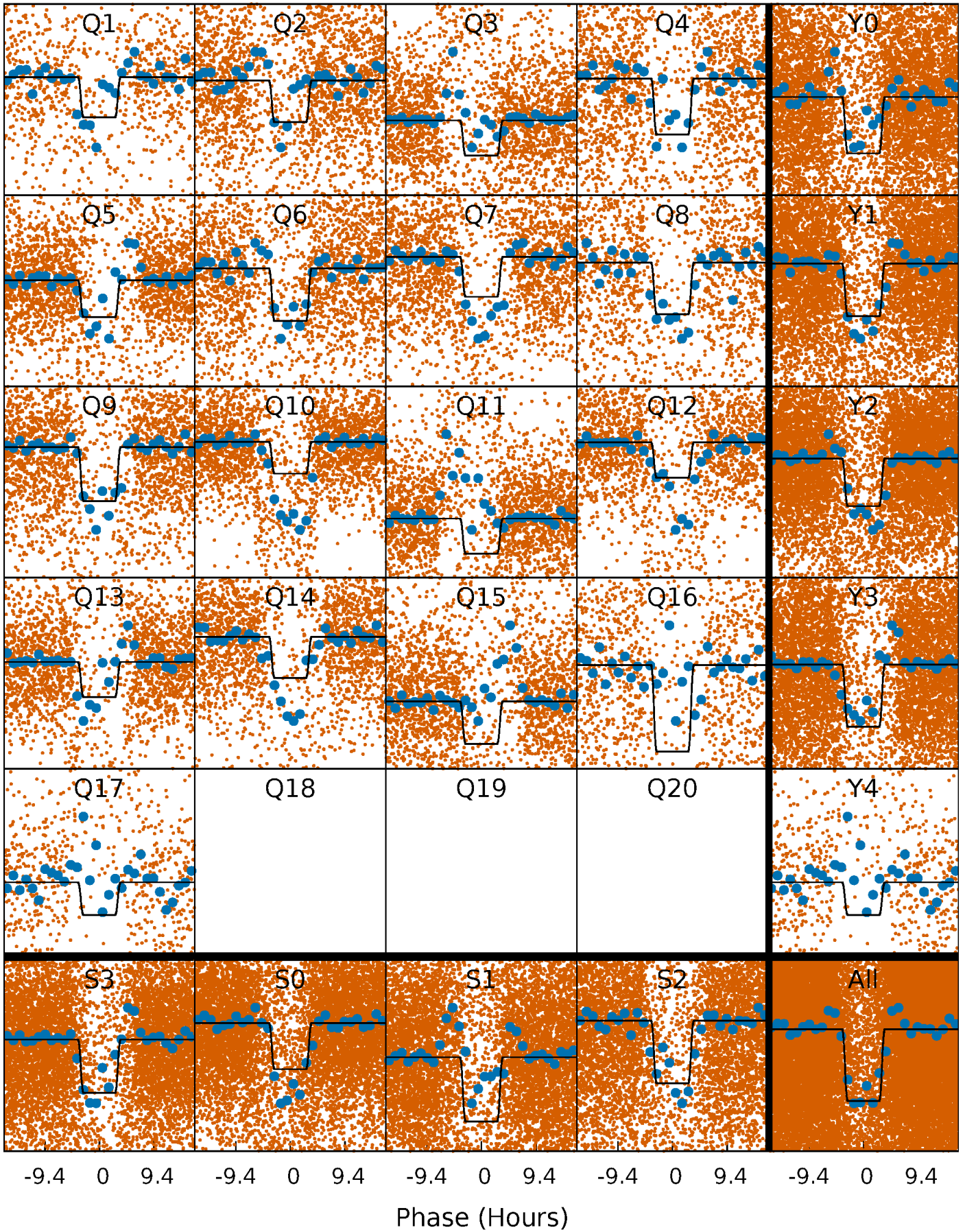
TCE 005811262-01 P= 2.085942 Days  $T_0=132.005251$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

TCE 005811262-01 P= 2.085904 Days  $T_0=132.006843$  (BKJD)

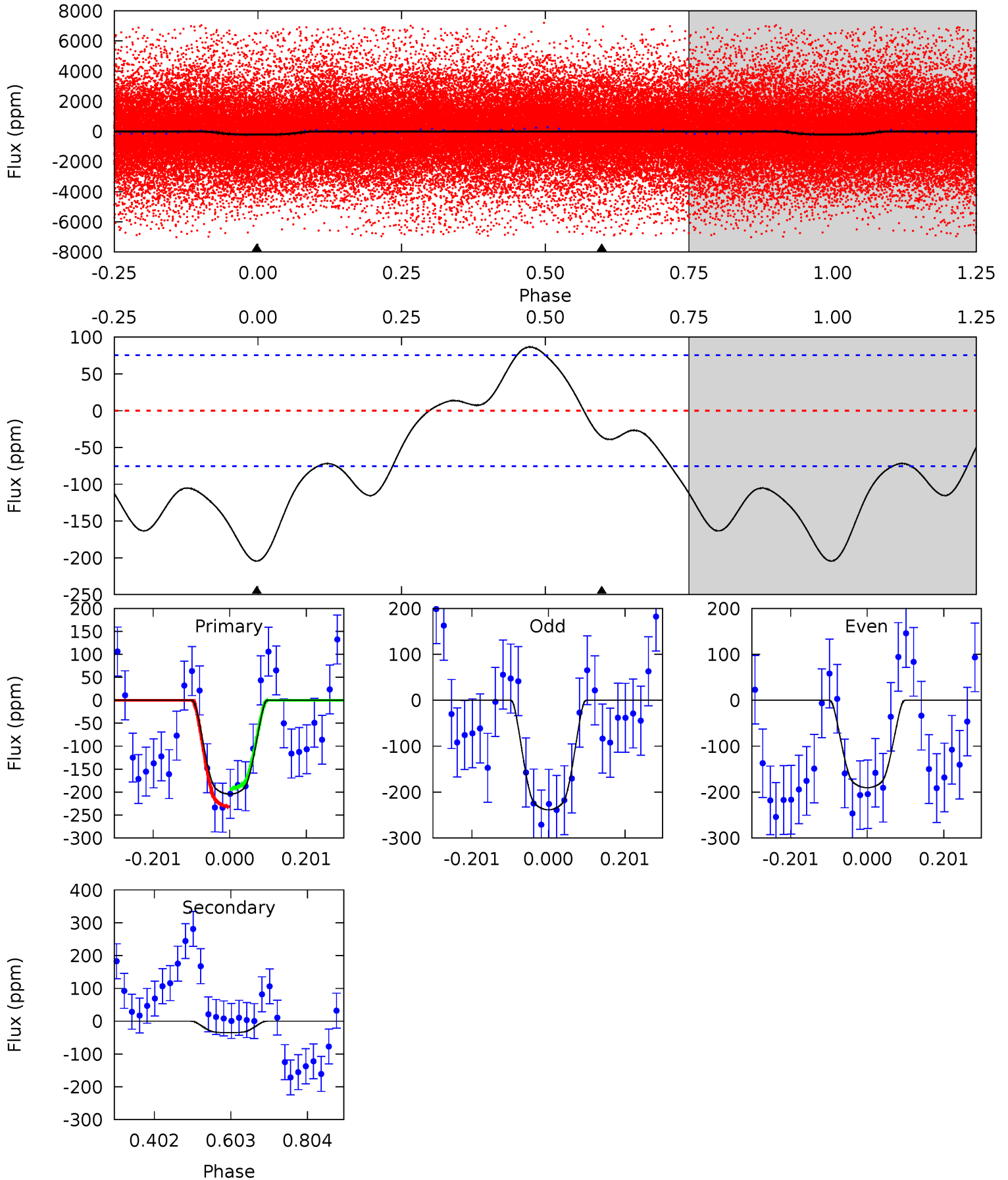




# DV Model-Shift Uniqueness Test

005811262-01, P = 2.085942 Days, E = 129.919309 Days

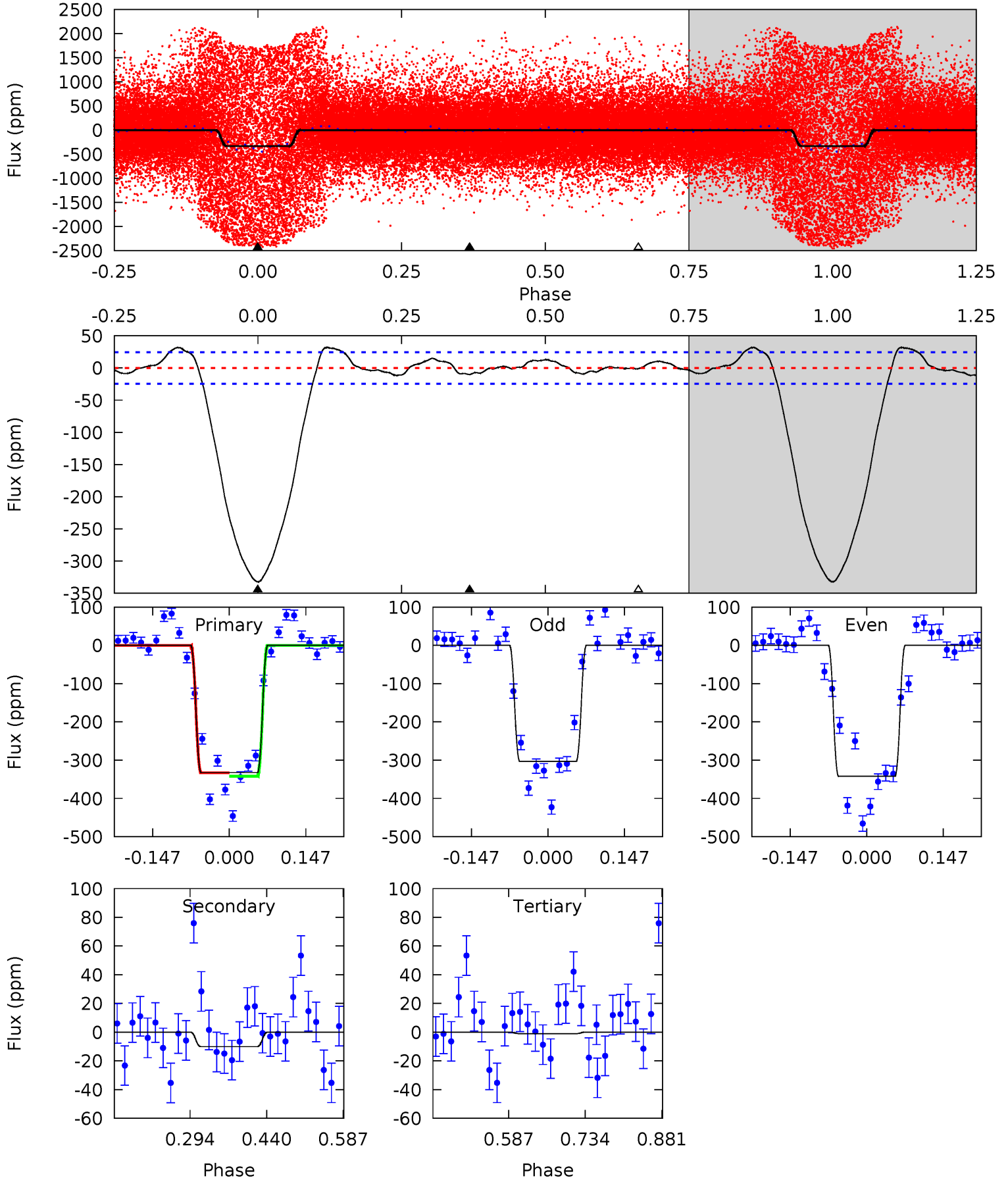
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.0	2.06	0	0	4.42	1.28	2.46	12.0	12.0	2.06	2.06	1.42	0.17	0.30	1.17



# Alt Model-Shift Uniqueness Test

005811262-01, P = 2.085904 Days, E = 129.920939 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
60.7	1.84	0.19	0	4.48	1.45	1.41	60.5	60.7	1.65	1.84	3.54	0.95	0.09	0.82



### Stellar Parameters For KIC 005811262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M$ ( $M_{\odot}$ )	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5592^{+167}_{-167}$	$4.612^{+0.040}_{-0.128}$	$-0.500^{+0.300}_{-0.300}$	$0.733^{+0.149}_{-0.053}$	$0.824^{+0.078}_{-0.087}$	$2.948^{+0.509}_{-1.115}$
	+3%/-3%	+1%/-3%	+60%/-60%	+20%/-7%	+9%/-11%	+17%/-38%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005811262-01 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-35 \pm 17$	$1.95^{+0.24}_{-0.16}$	$1739^{+87}_{-75}$	$3322^{+241}_{-377}$	$4.531^{+2.461}_{-2.357}$
Alt.	$-10 \pm 5$	$1.50^{+0.17}_{-0.12}$	$1740^{+89}_{-74}$	$2932^{+232}_{-349}$	$2.146^{+1.274}_{-1.154}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$



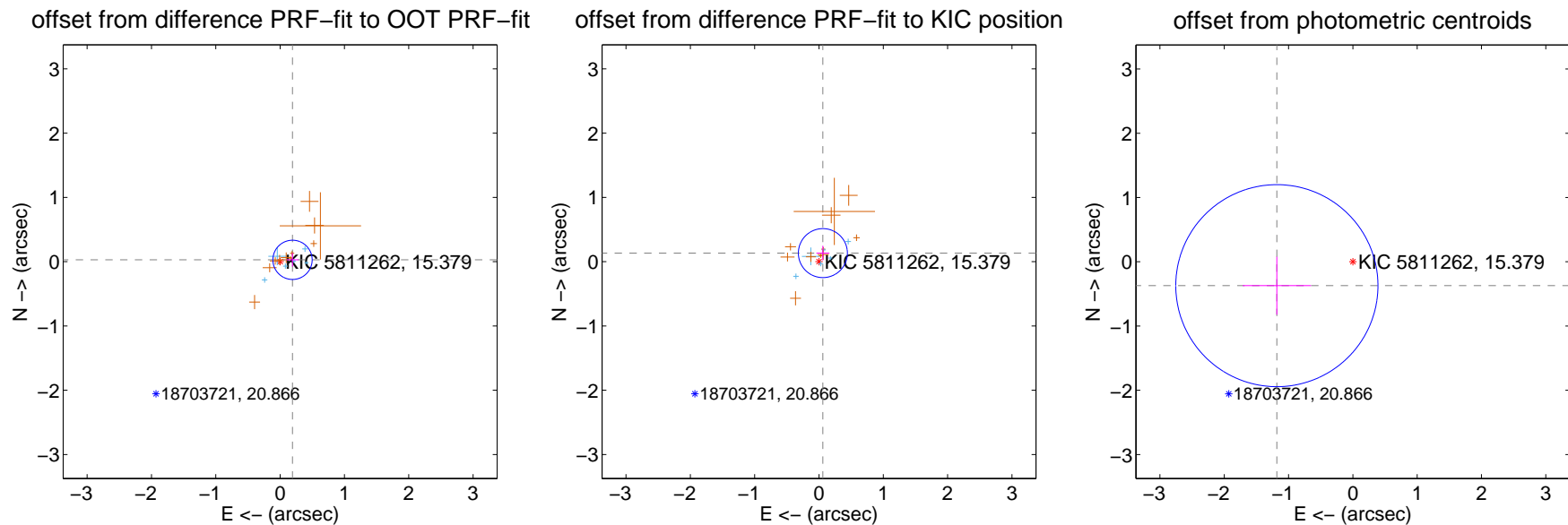
## DV Centroid Data

Supplemental centroid analysis for 005811262-01. Kepler magnitude: 15.38. Transit SNR 12.19

There are 6 quarters with good PRF difference image offsets

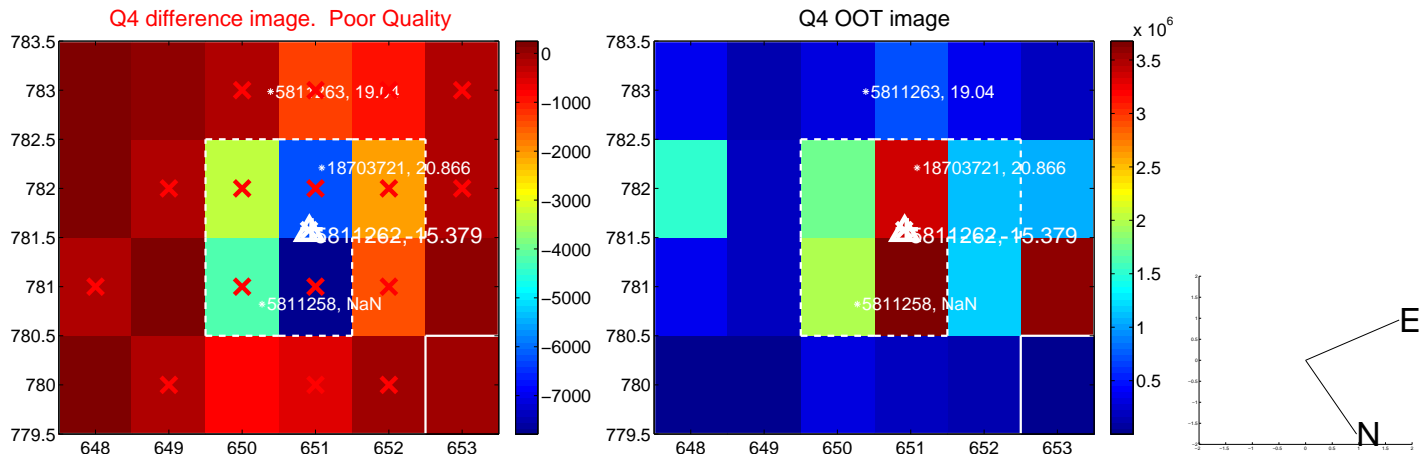
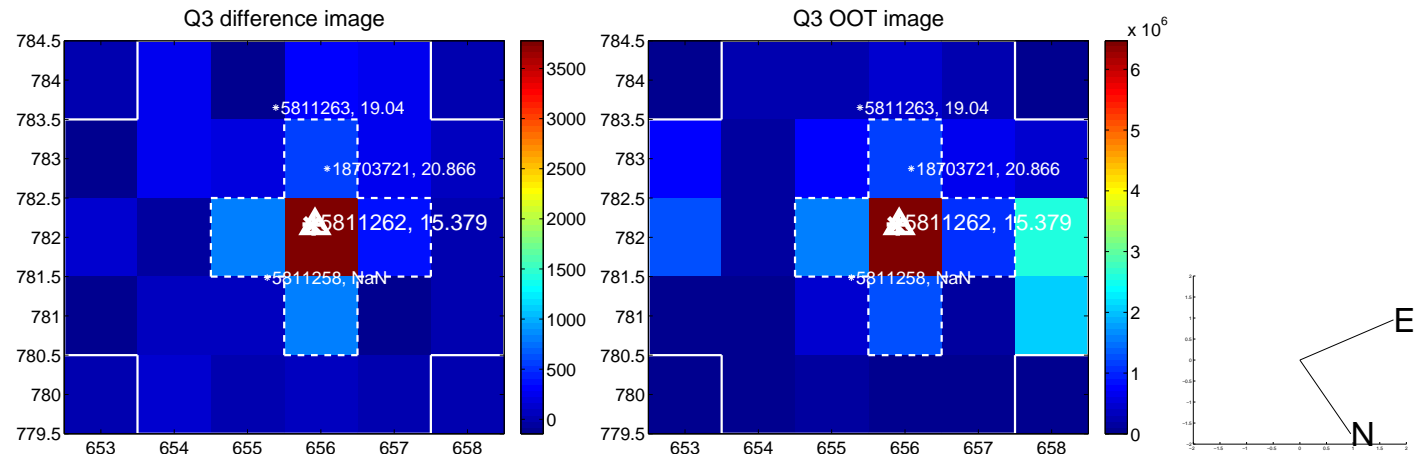
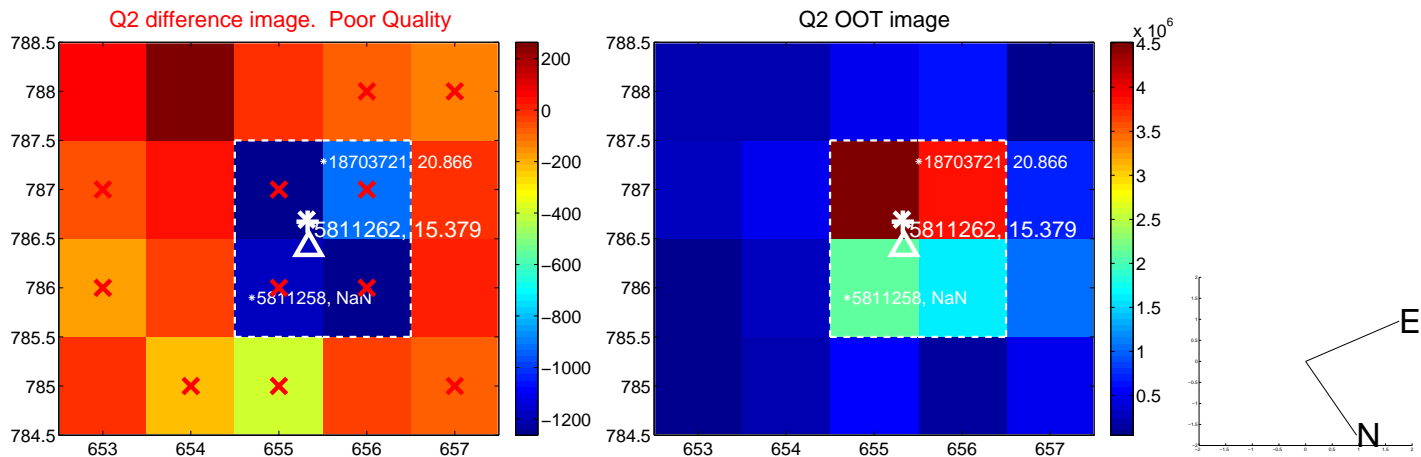
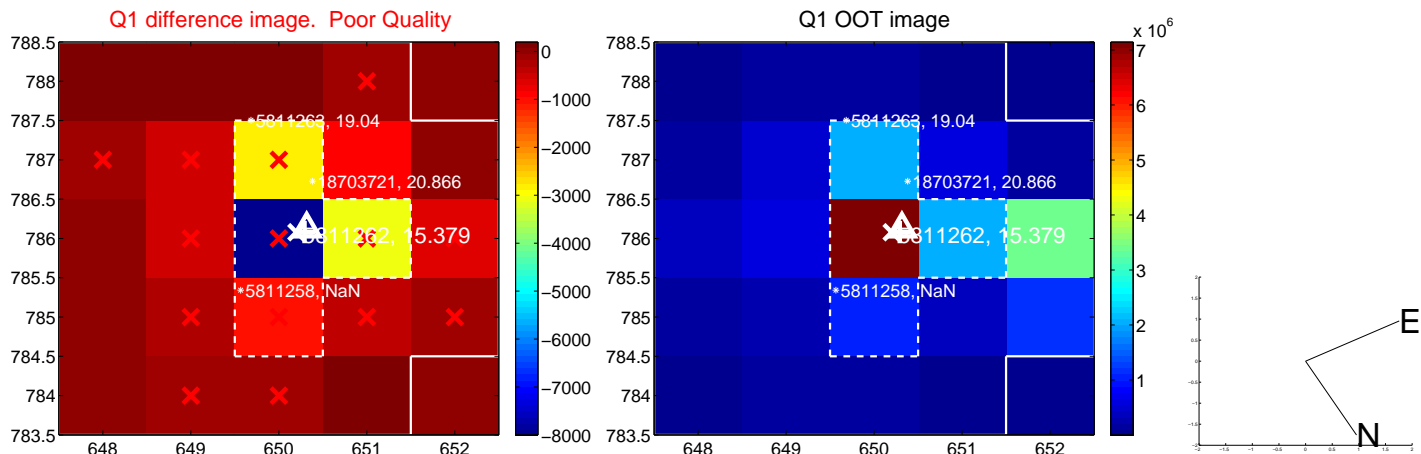
The direct PRF centroid is offset from the target star catalog position by about 0.45 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.195 \pm 0.102$	1.92	$-0.193 \pm 0.095$	$0.029 \pm 0.106$
PRF-fit source offset from KIC position	$0.147 \pm 0.127$	1.16	$-0.061 \pm 0.101$	$0.134 \pm 0.114$
photometric centroid source offset	$1.24 \pm 0.52$	2.36	$1.18 \pm 0.53$	$-0.37 \pm 0.45$

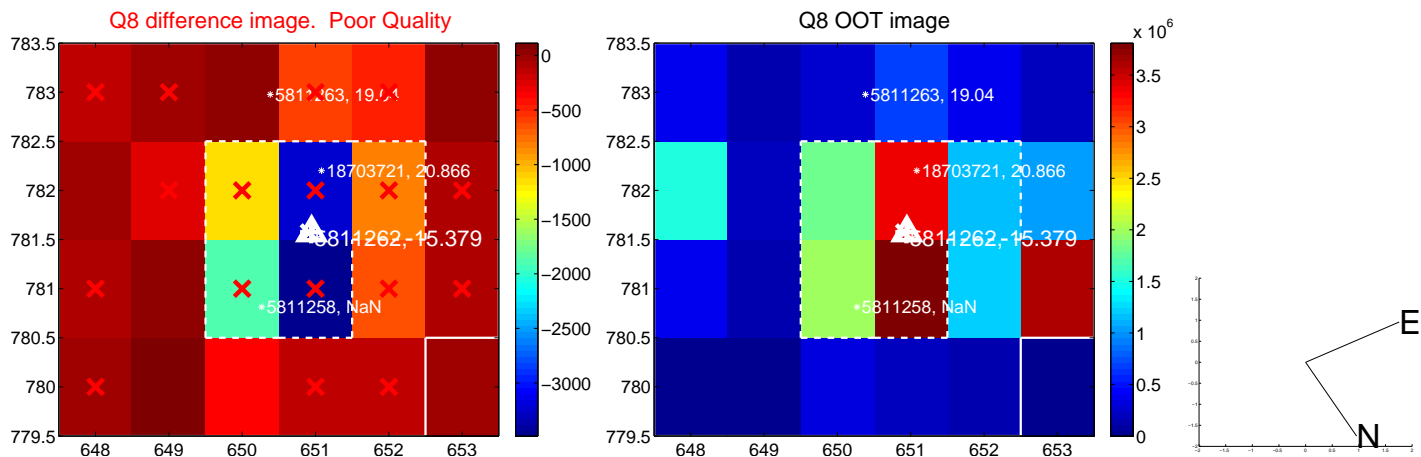
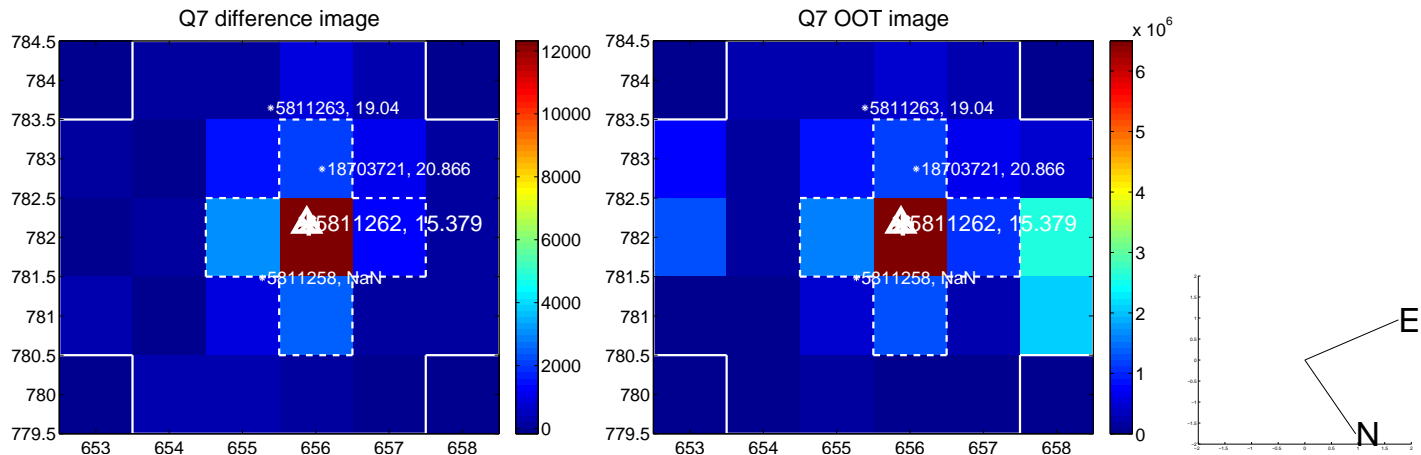
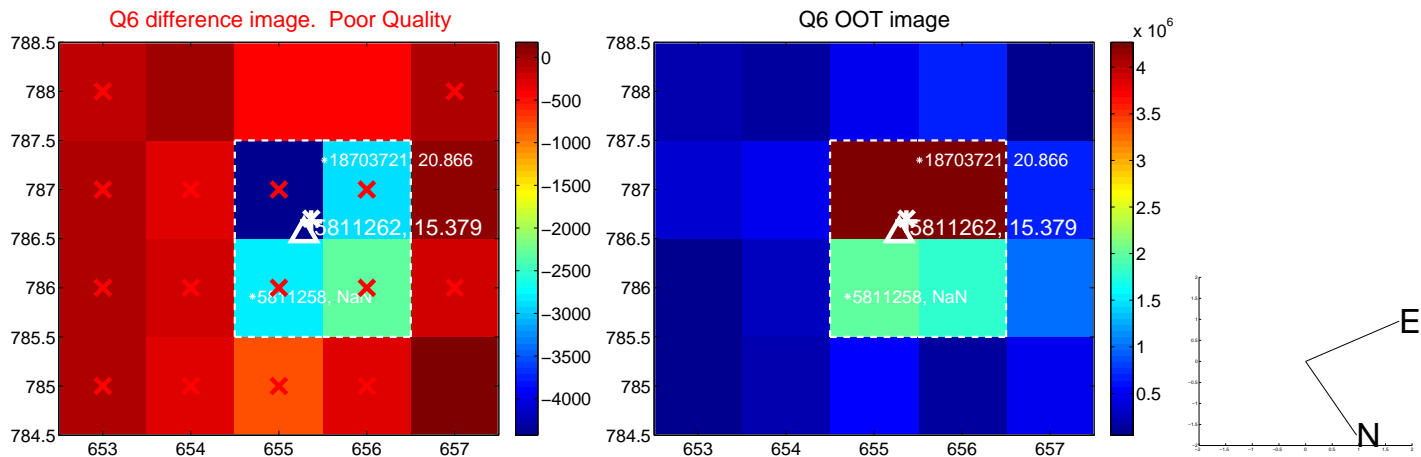
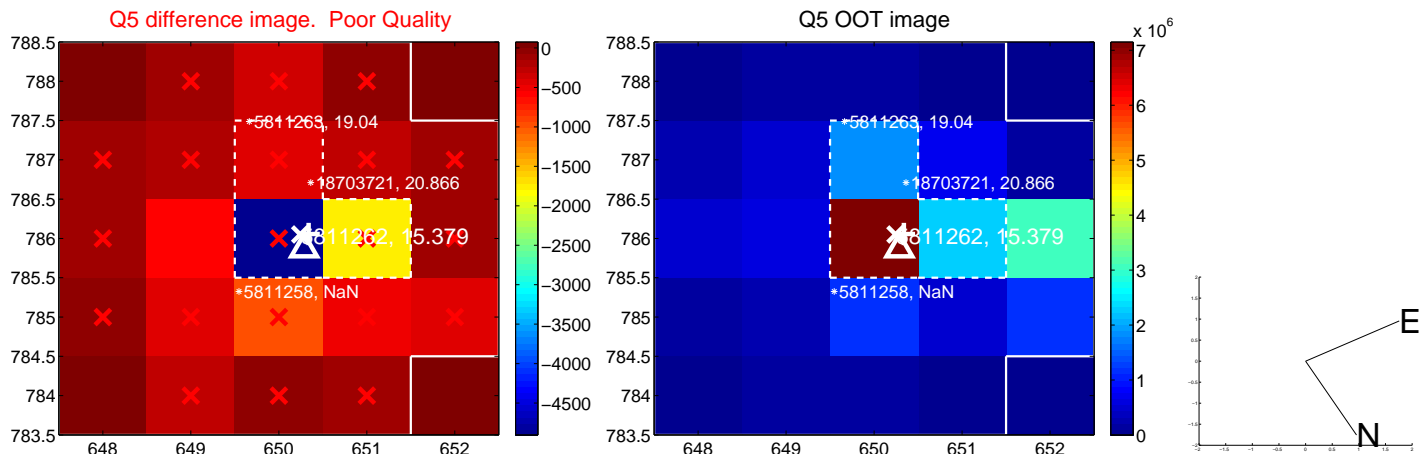


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

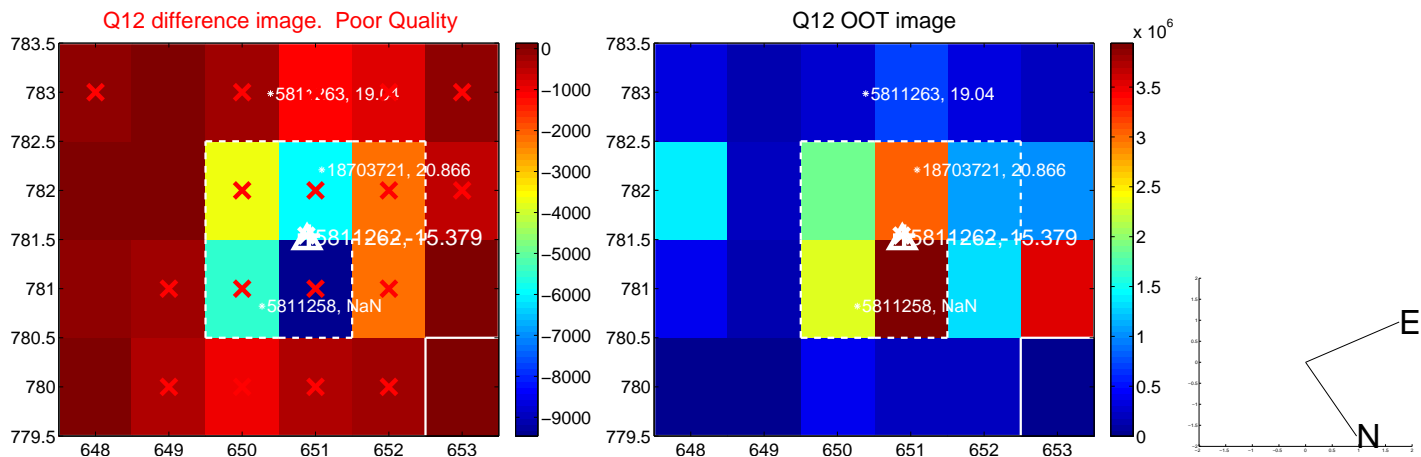
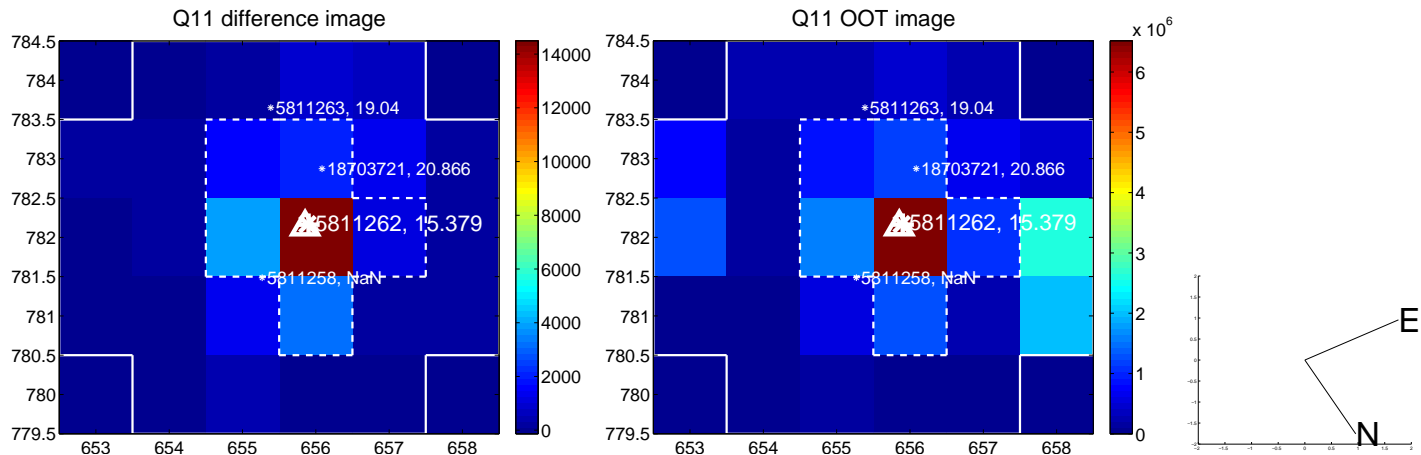
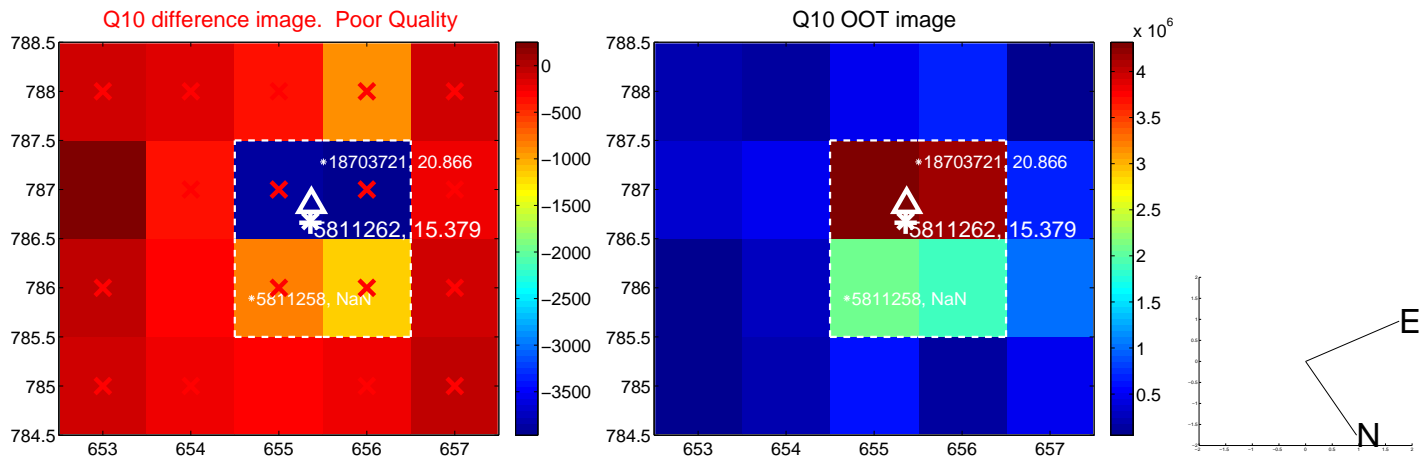
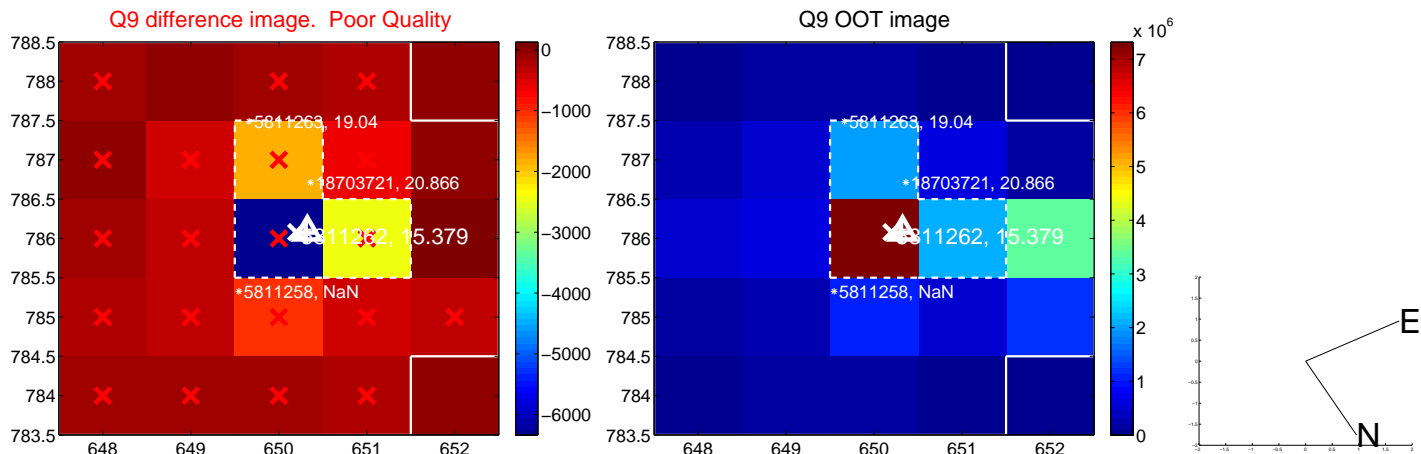
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



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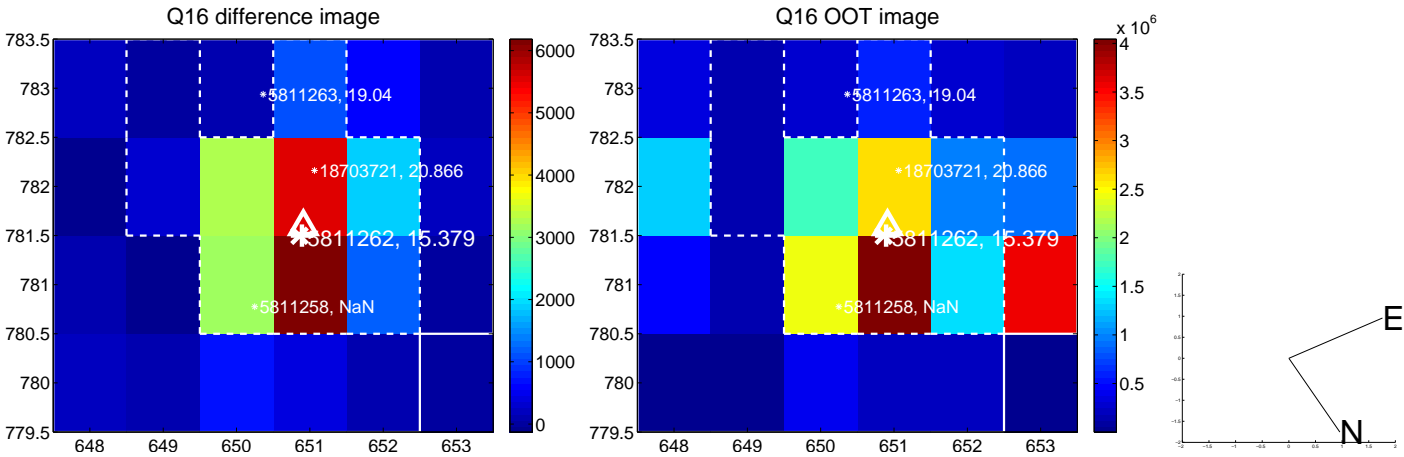
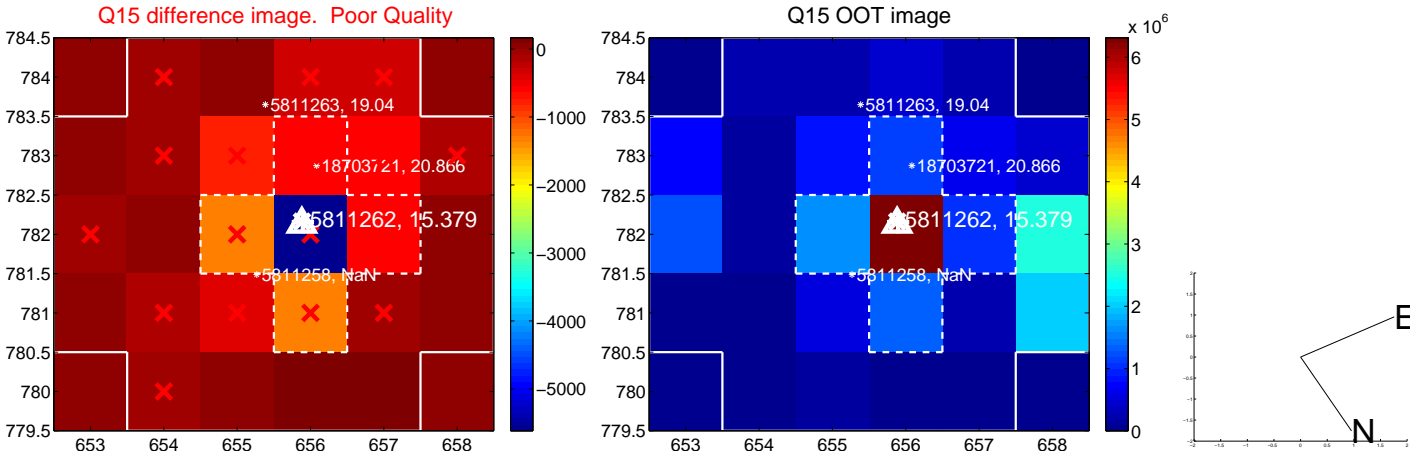
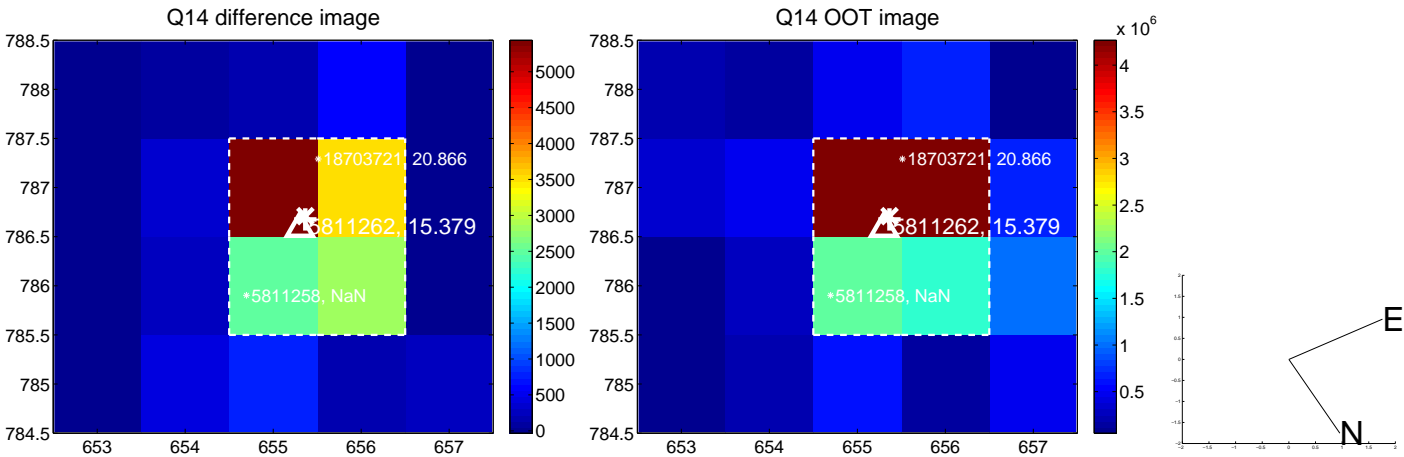
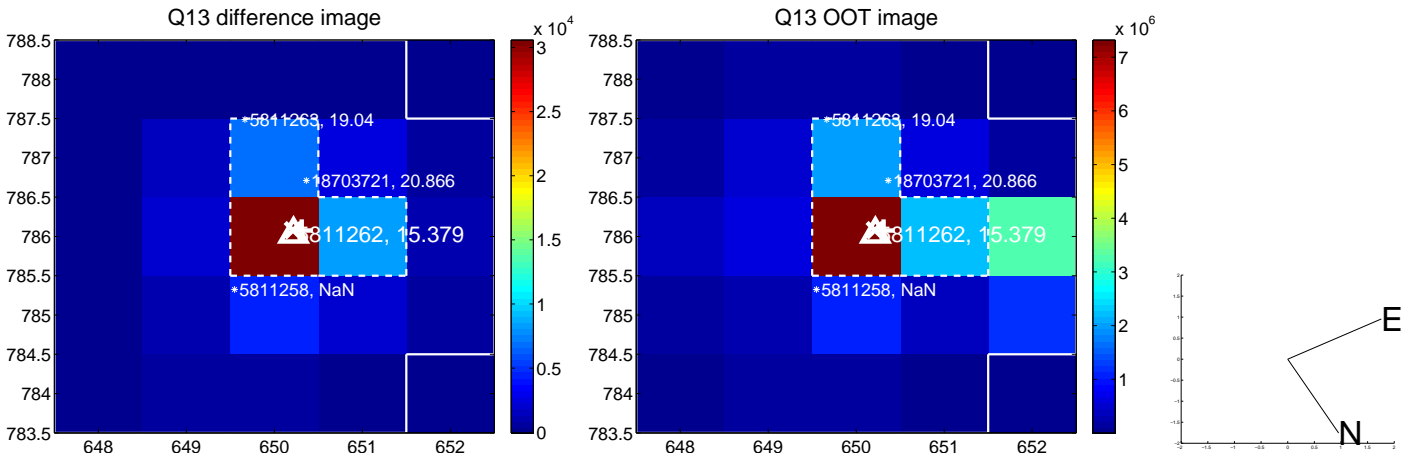


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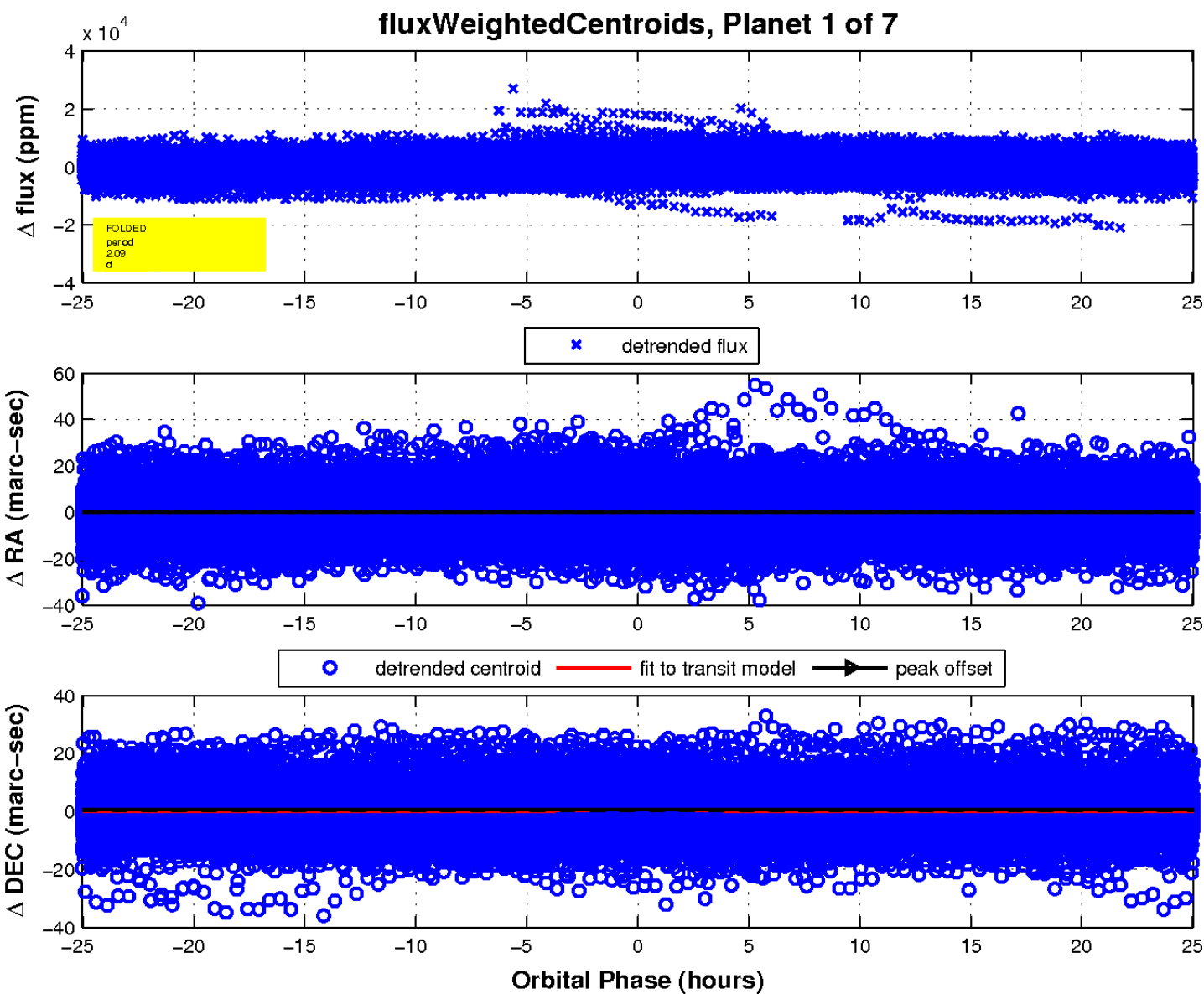
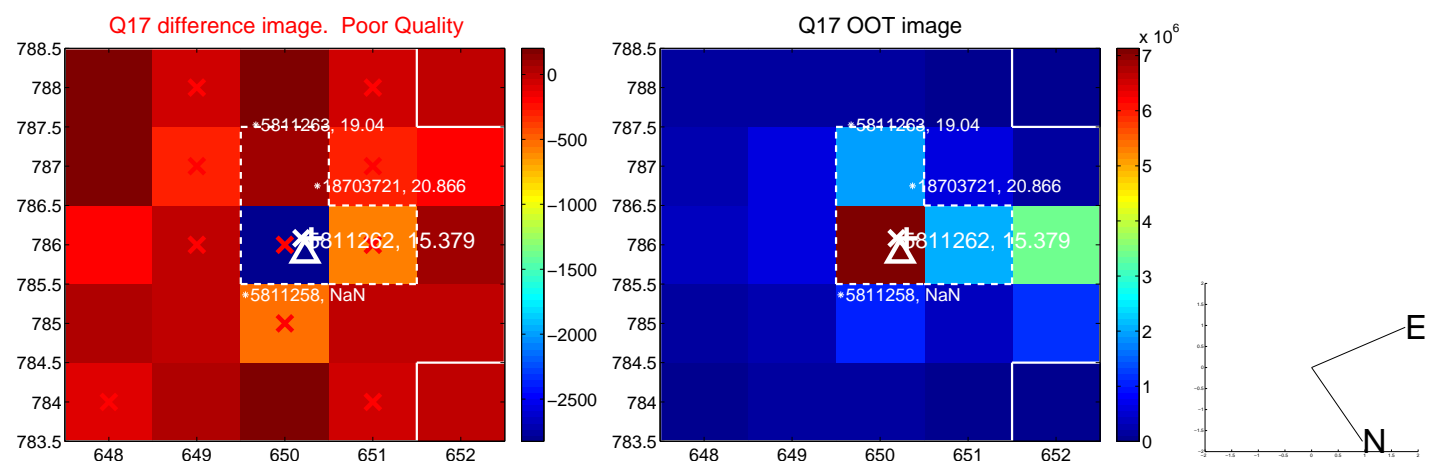




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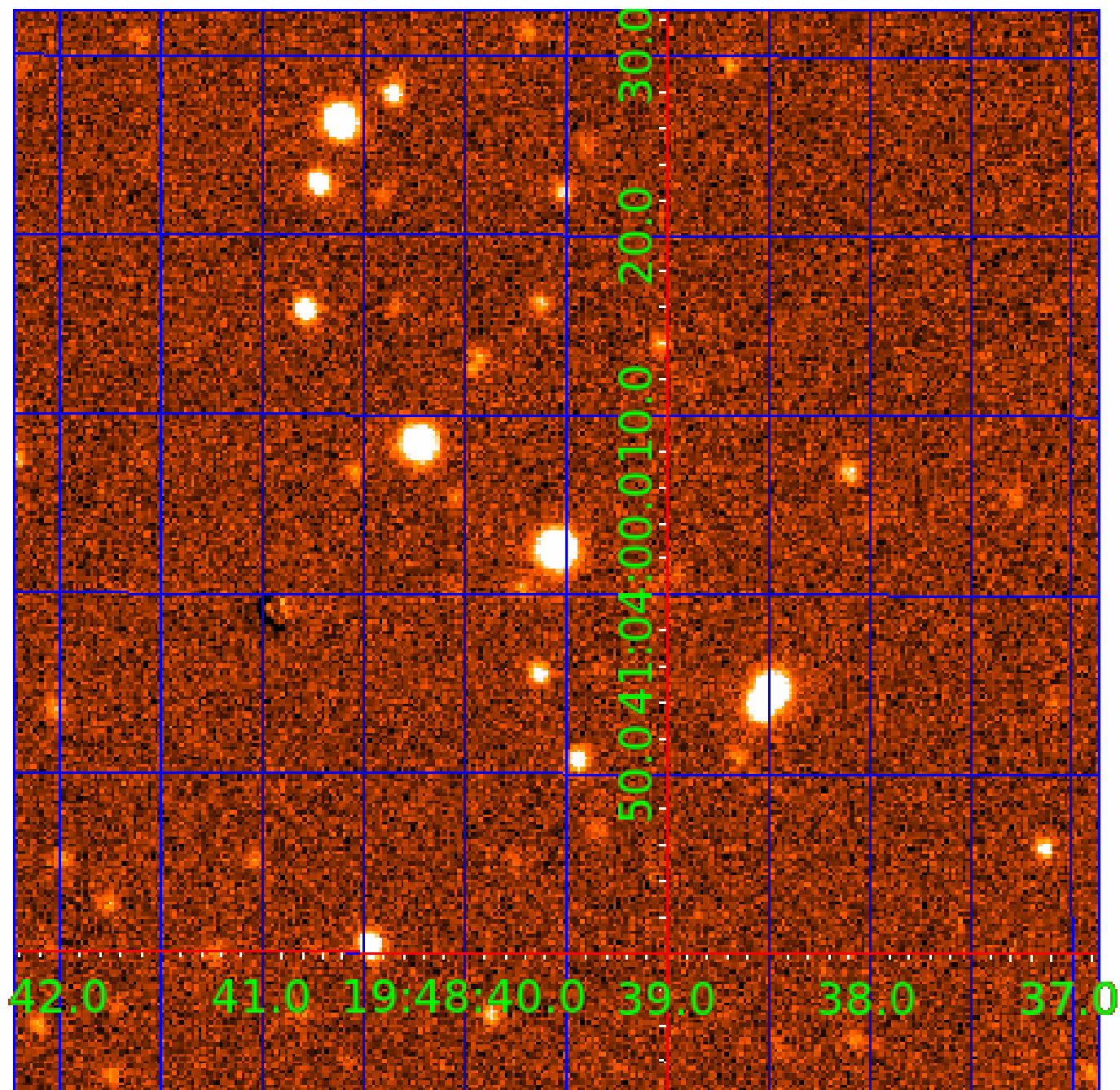


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 005811262

## Q1-17 DR25 TCE Parameters

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005811262-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005811262-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST
005811262-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

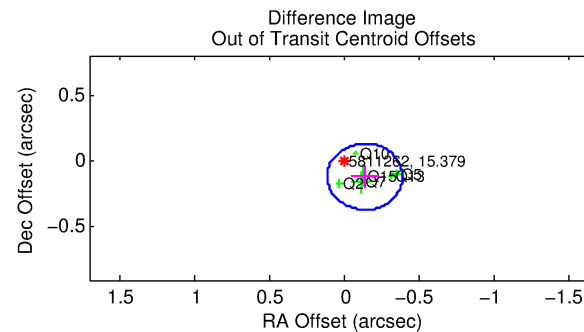
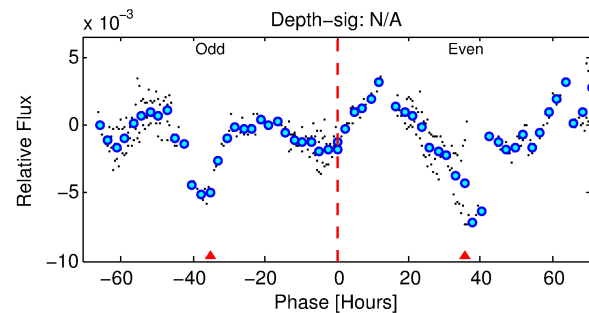
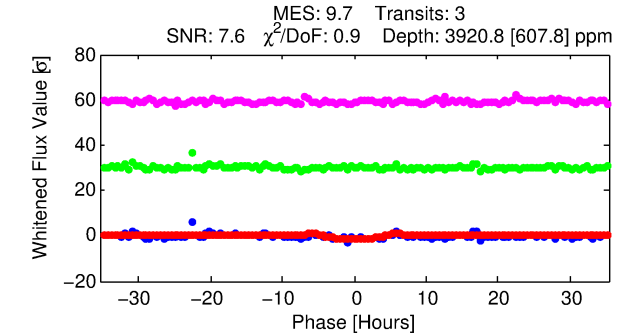
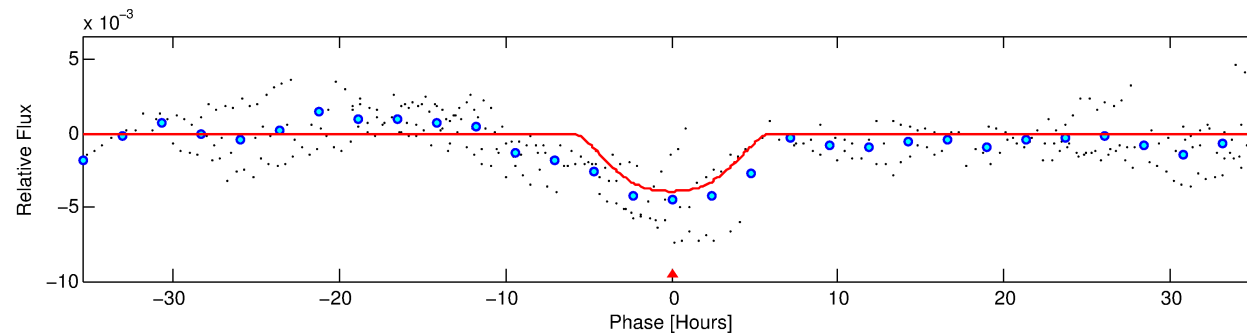
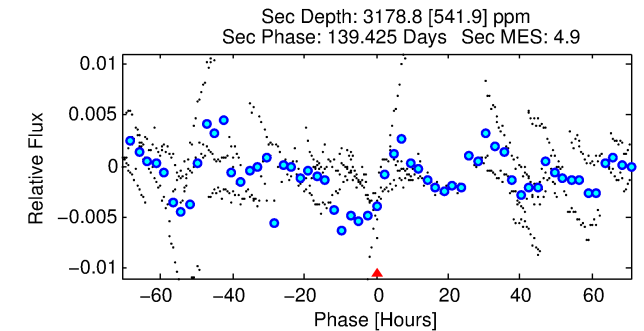
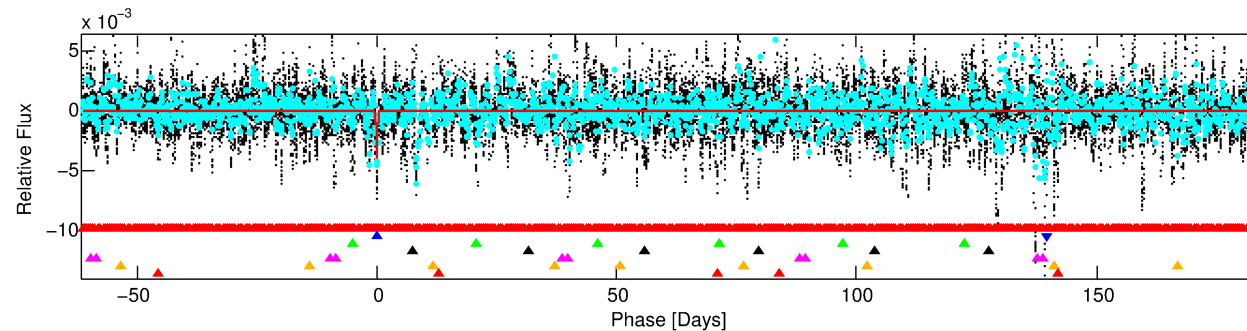
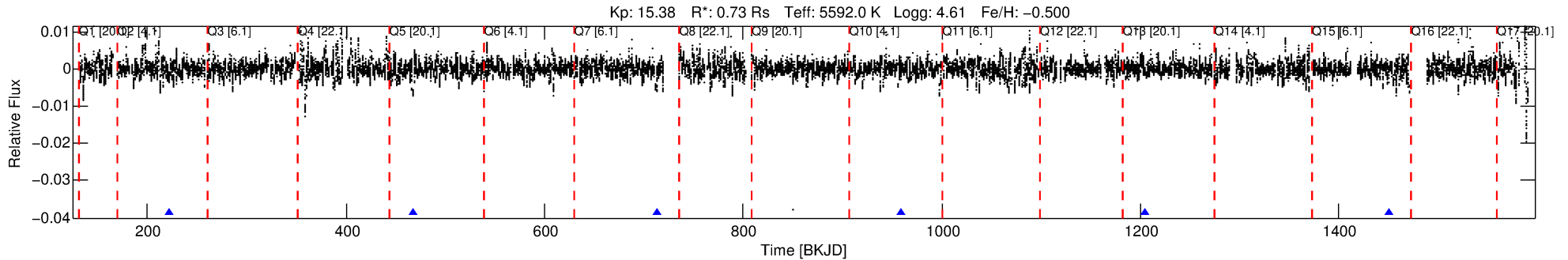
## Ephemeris Match Information For 005811262-02

No Significant Match Found



# DV One-Page Summary

KIC: 5811262 Candidate: 2 of 7 Period: 245.655 d



## DV Fit Results:

Period = 245.65535 [0.00719] d  
Epoch = 221.3896 [0.0199] BKJD  
Rp/R\* = 0.0709 [0.0063]  
a/R\* = 85.18 [8.18]  
b = 0.93 [0.02]  
Seff = 0.92 [0.25]  
Teq = 250 [17] K  
Rp = 5.67 [1.26] Re  
a = 0.7134 [0.1194] AU  
Ag = 27699.20 [9513.20] [2.91σ]  
Teffp = 4988 [342] K [13.83σ]

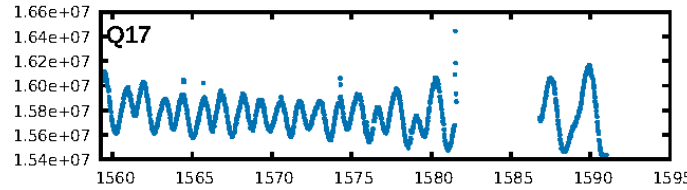
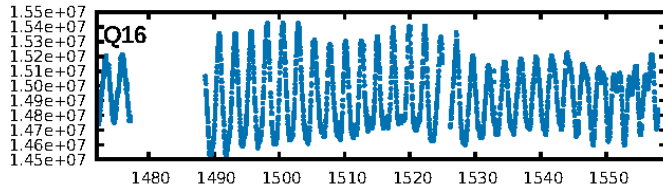
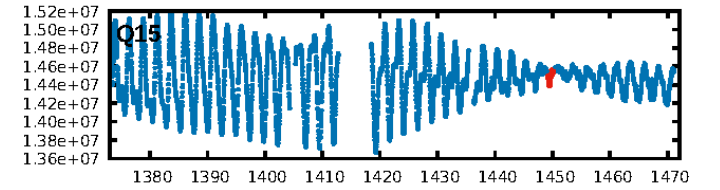
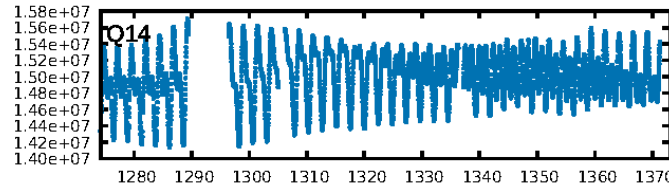
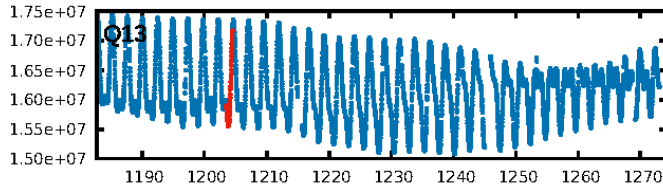
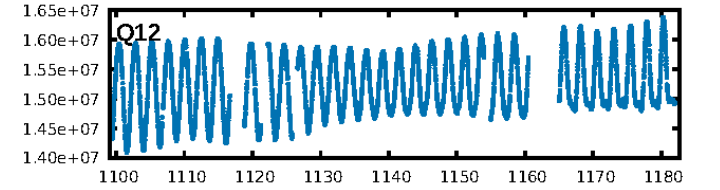
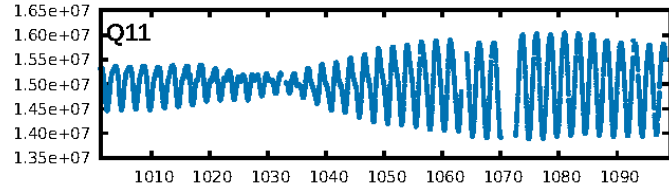
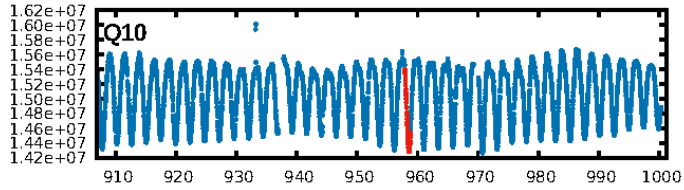
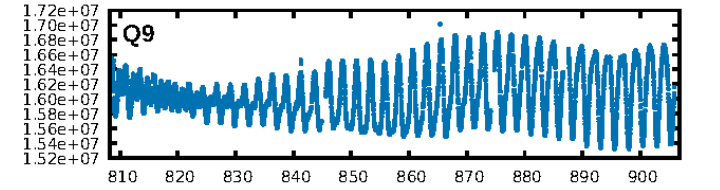
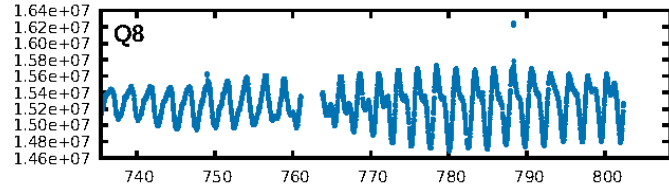
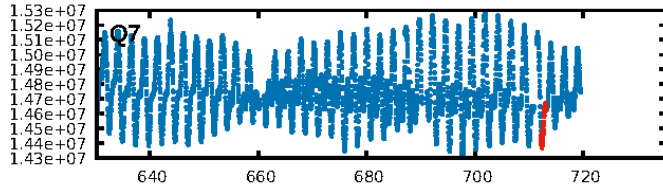
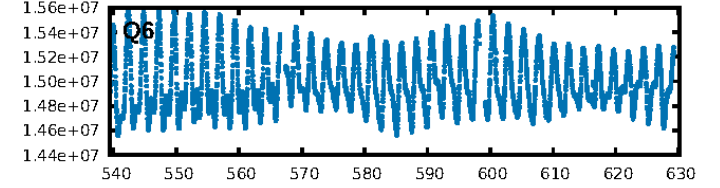
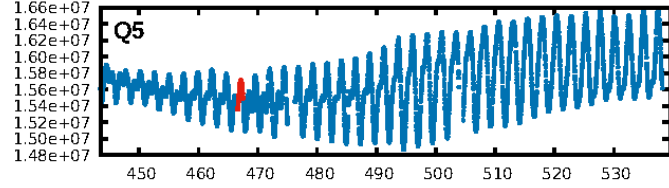
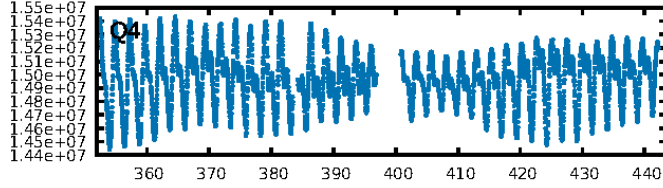
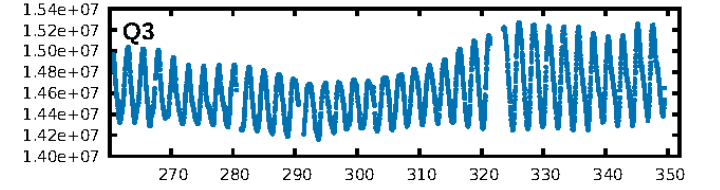
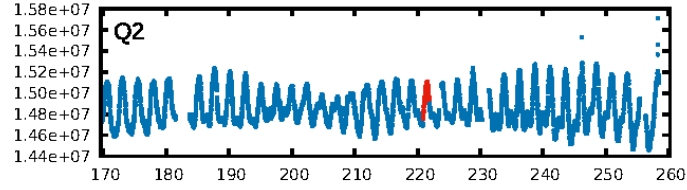
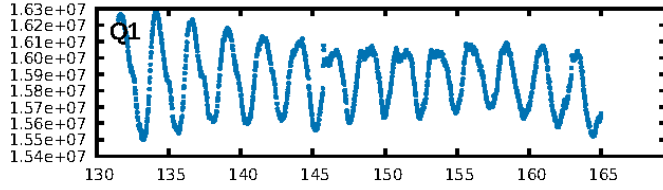
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [46.66σ]  
LongPeriod-sig: 100.0% [41.11σ]  
ModelChiSquare2-sig: 22.0%  
ModelChiSquareGof-sig: 99.9%  
**Bootstrap-pfa: 1.50e-09**  
RollingBand-fgt: 1.00 [3/3]  
**GhostDiagnostic-chr: -1.864**  
Centroid-sig: 1.7%  
Centroid-so: 0.978 arcsec [1.49σ]  
OotOffset-rm: 0.184 arcsec [2.20σ]  
KicOffset-rm: 0.100 arcsec [1.26σ]  
OotOffset-st: 2/2/0/2 [6]  
KicOffset-st: 2/2/0/2 [6]  
DiffImageQuality-fgm: 0.67 [4/6]  
DiffImageOverlap-fno: 0.00 [0/6]

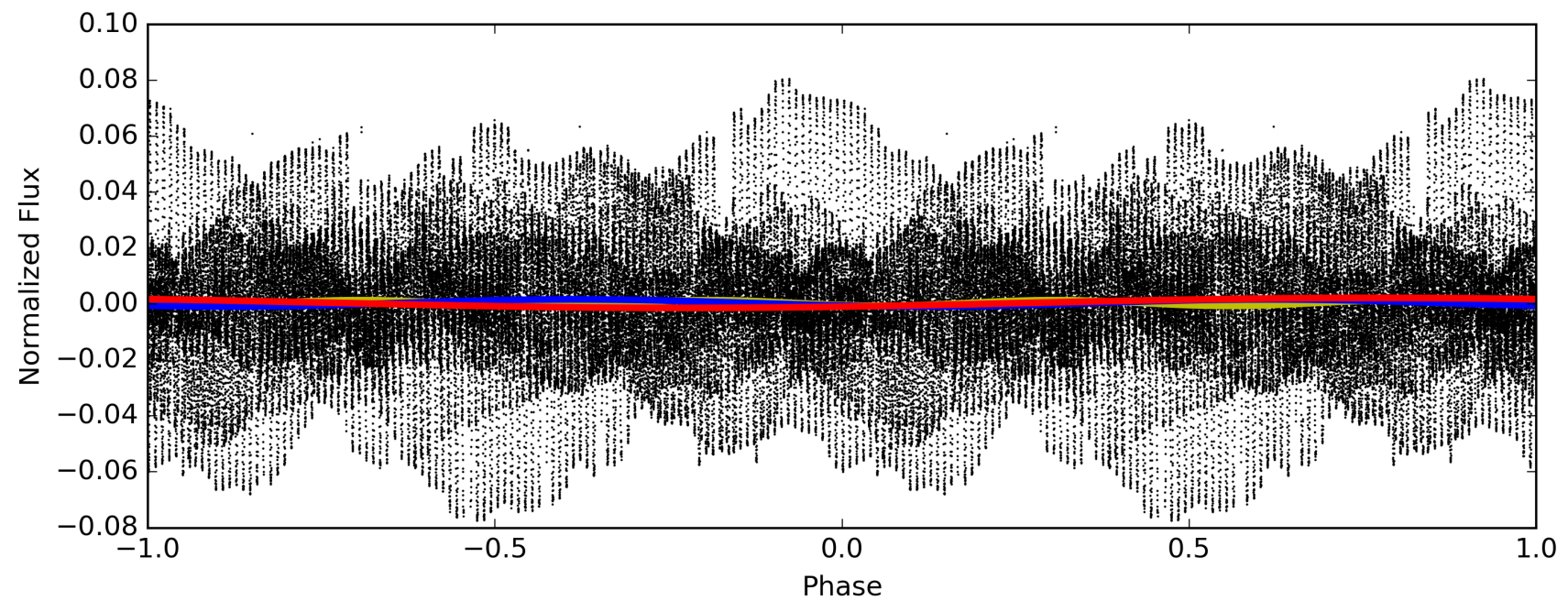
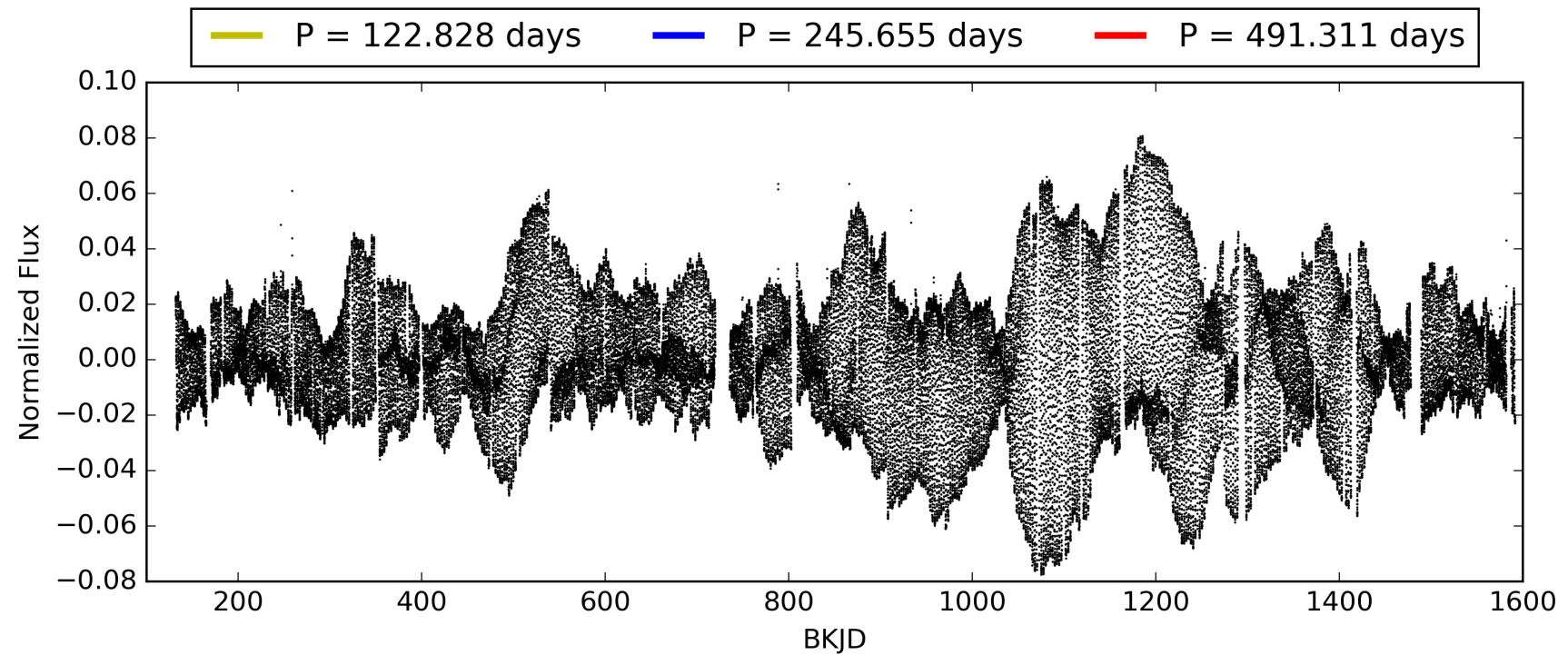
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:54:41 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 005811262-02, PDC Light Curves

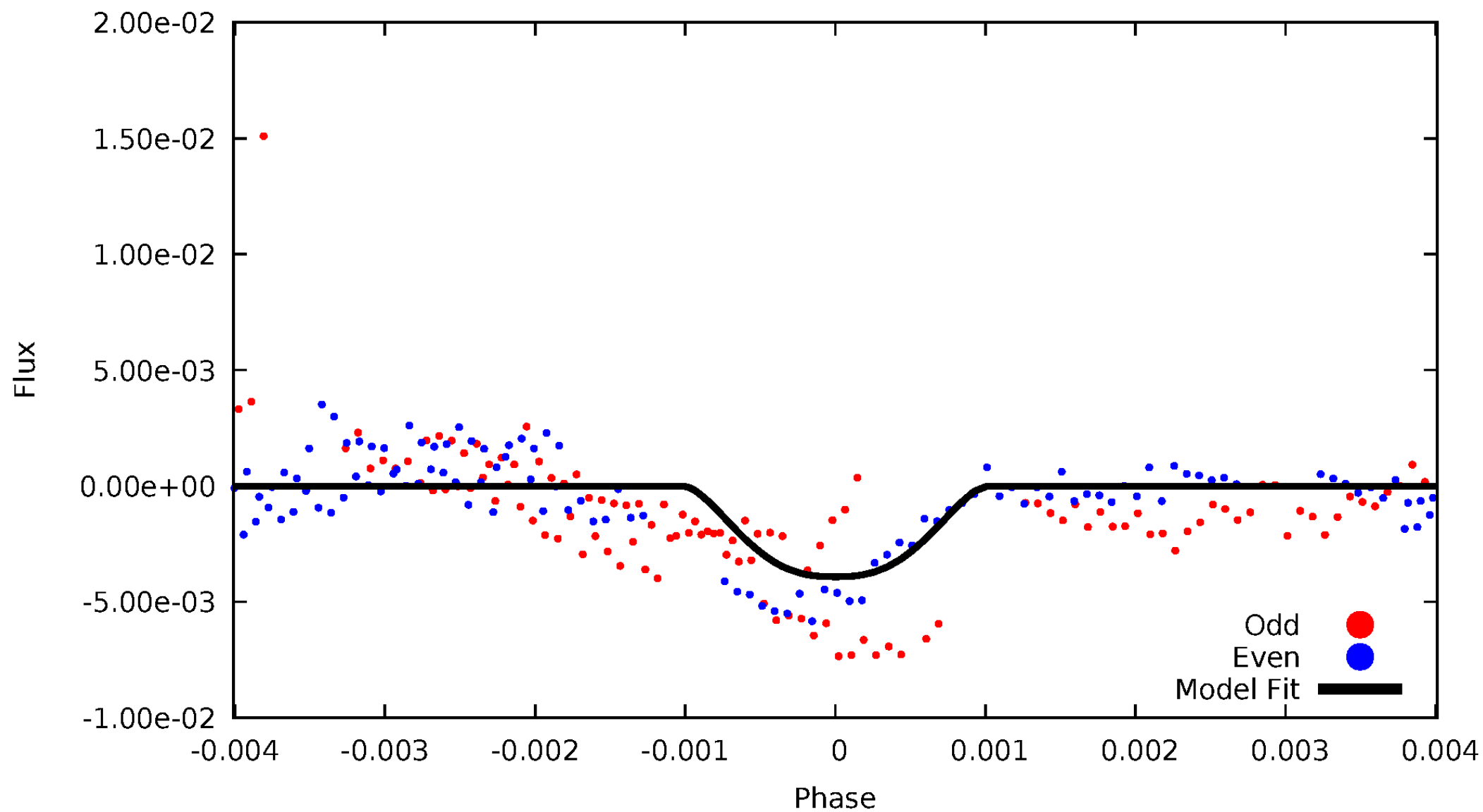


TCE 005811262-02



# DV Odd/Even

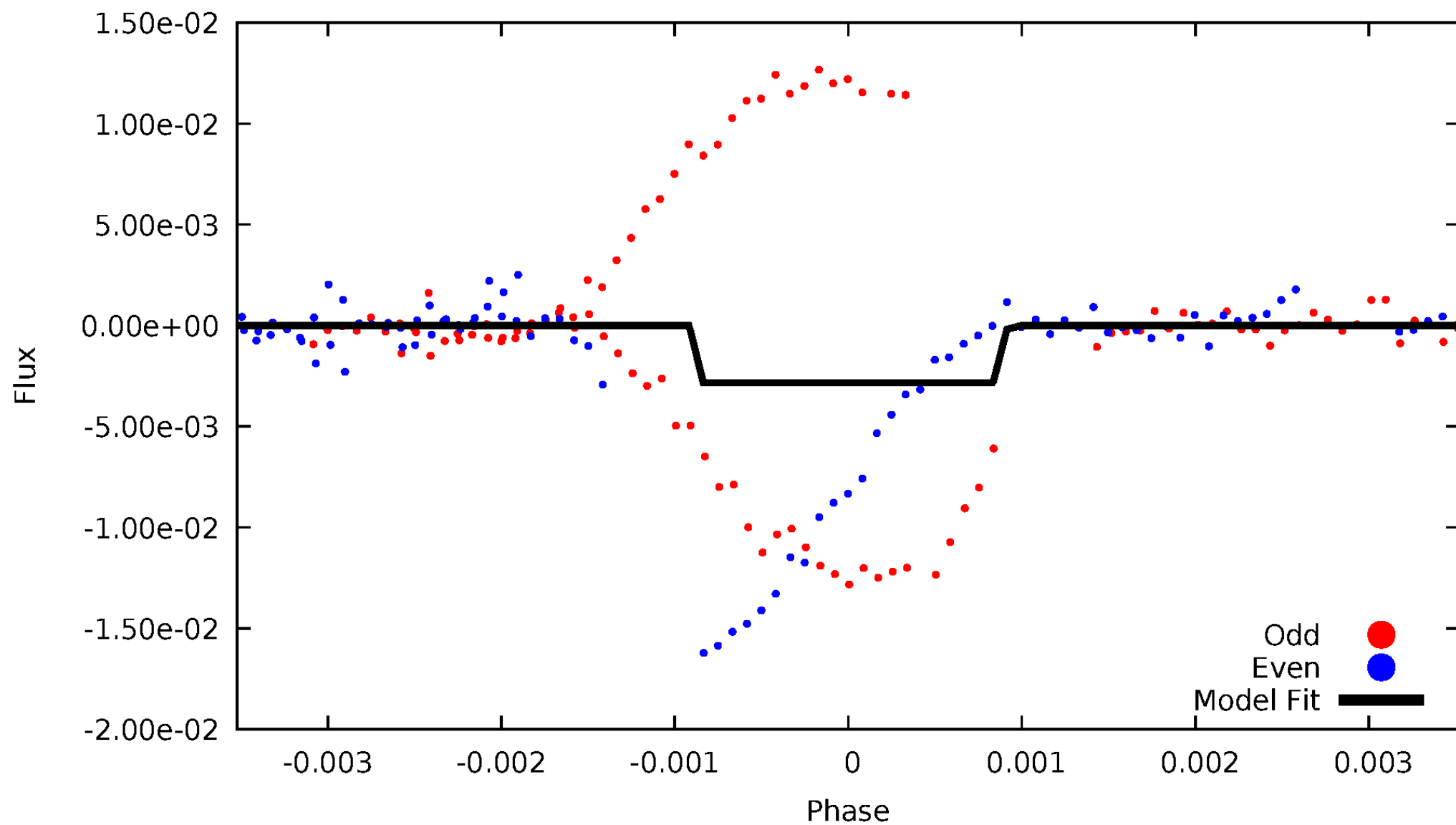
TCE 005811262-02





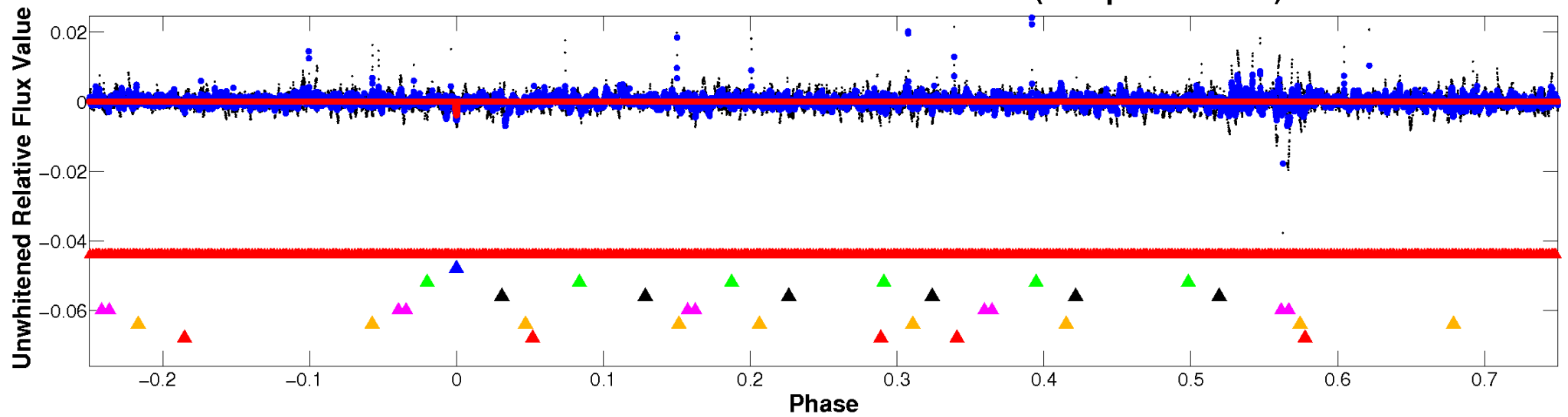
# ALT Odd/Even

TCE 005811262-02

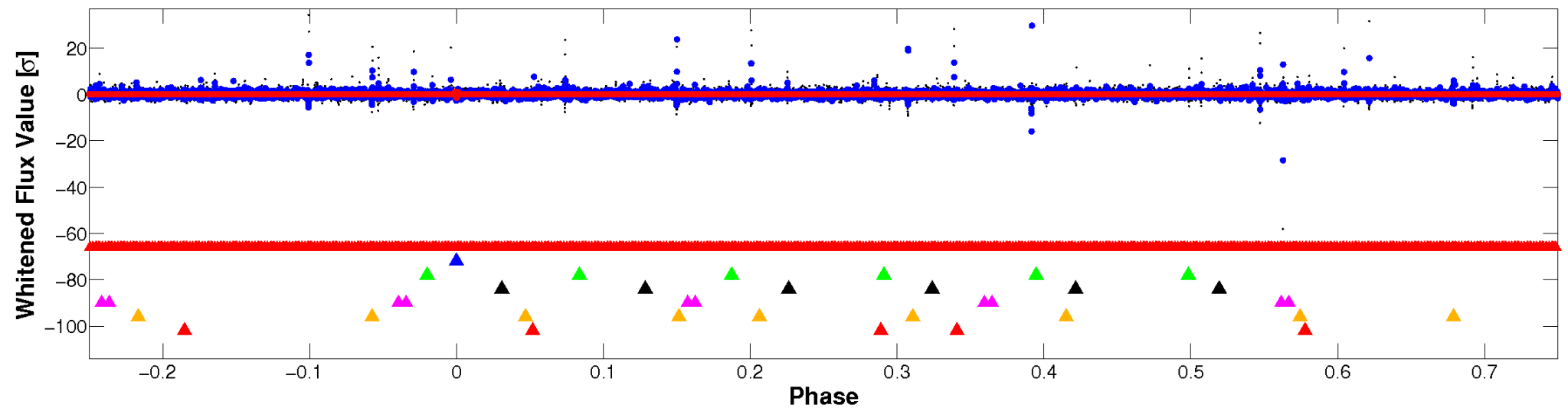


# Non-Whitened Vs. Whitened Light Curve

## Planet 2 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

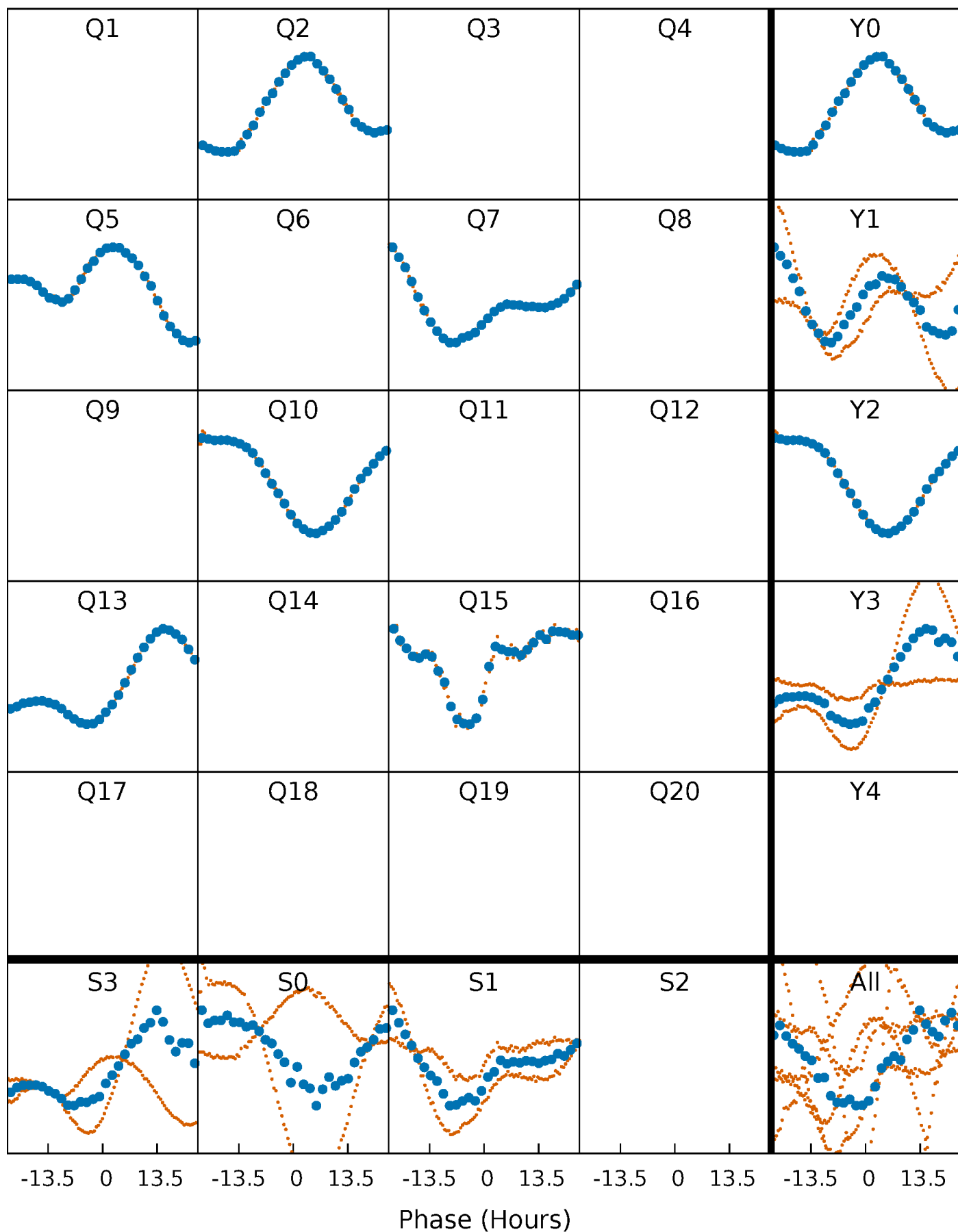


## Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



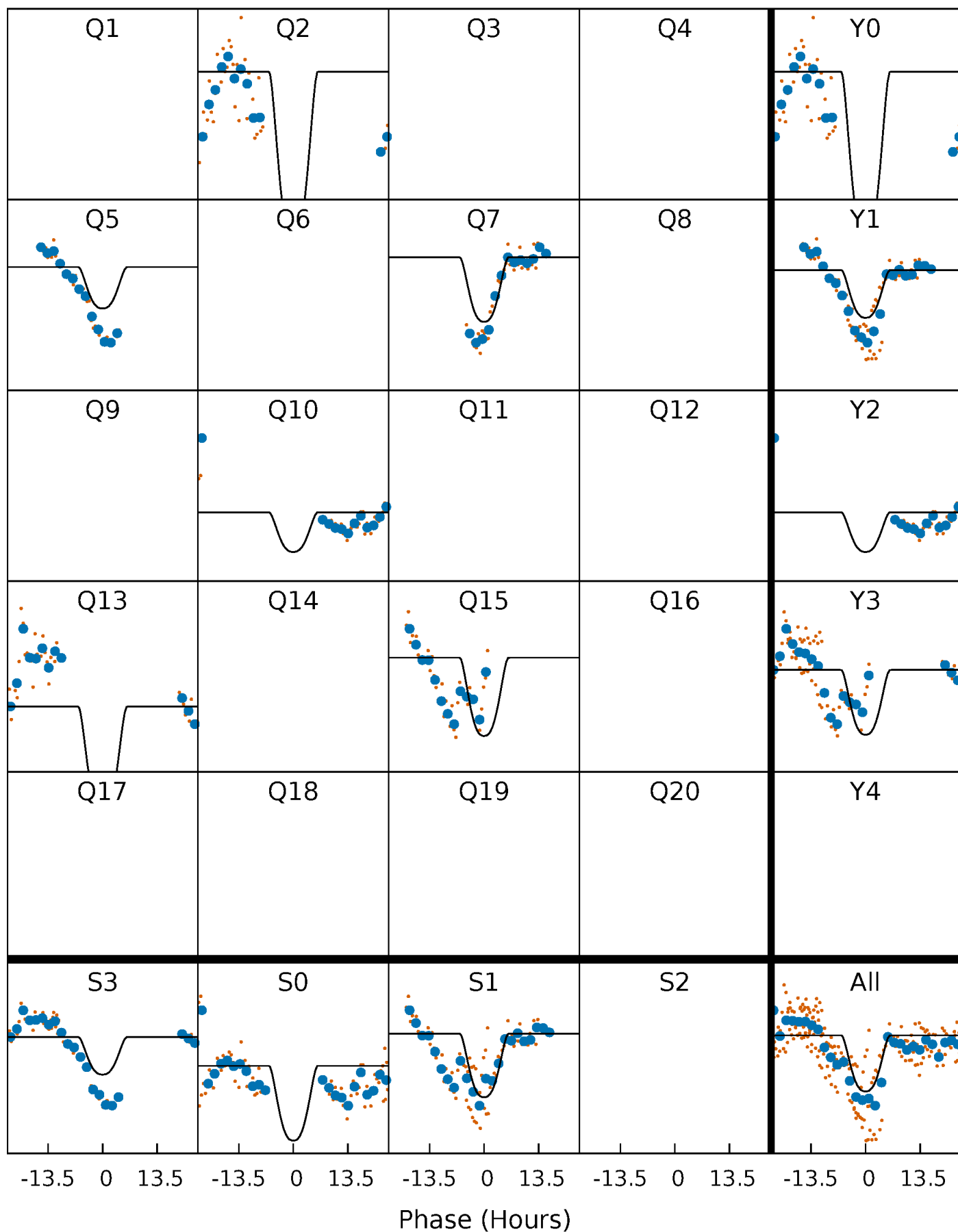
# PDC Quarter-Phased Transit Curves

TCE 005811262-02 P=245.655352 Days  $T_0=221.389634$  (BKJD)



# DV Quarter-Phased Transit Curves

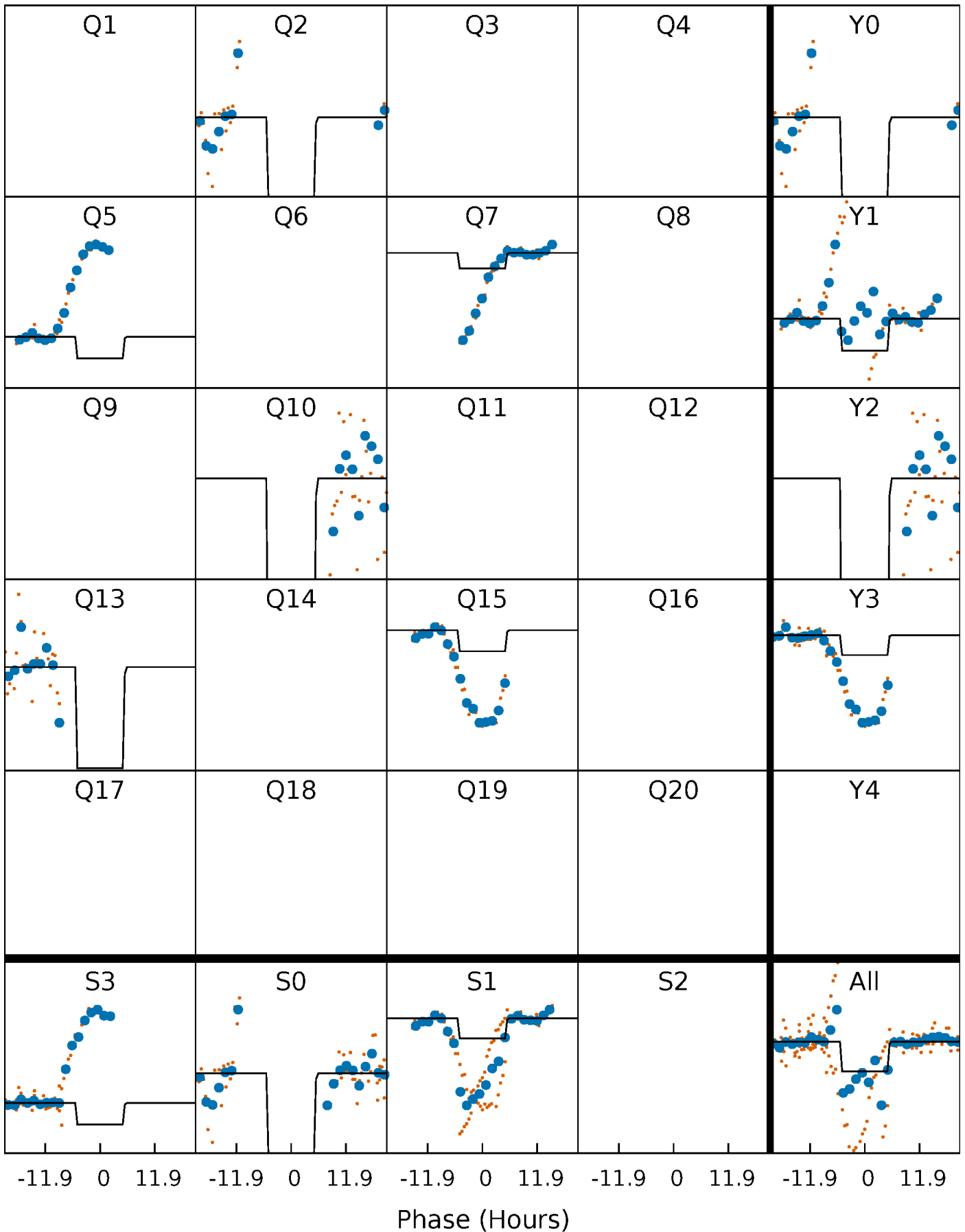
TCE 005811262-02     $P=245.655352$  Days     $T_0=221.389634$  (BKJD)





# Alt. Detrend Quarter-Phased Transit Curves

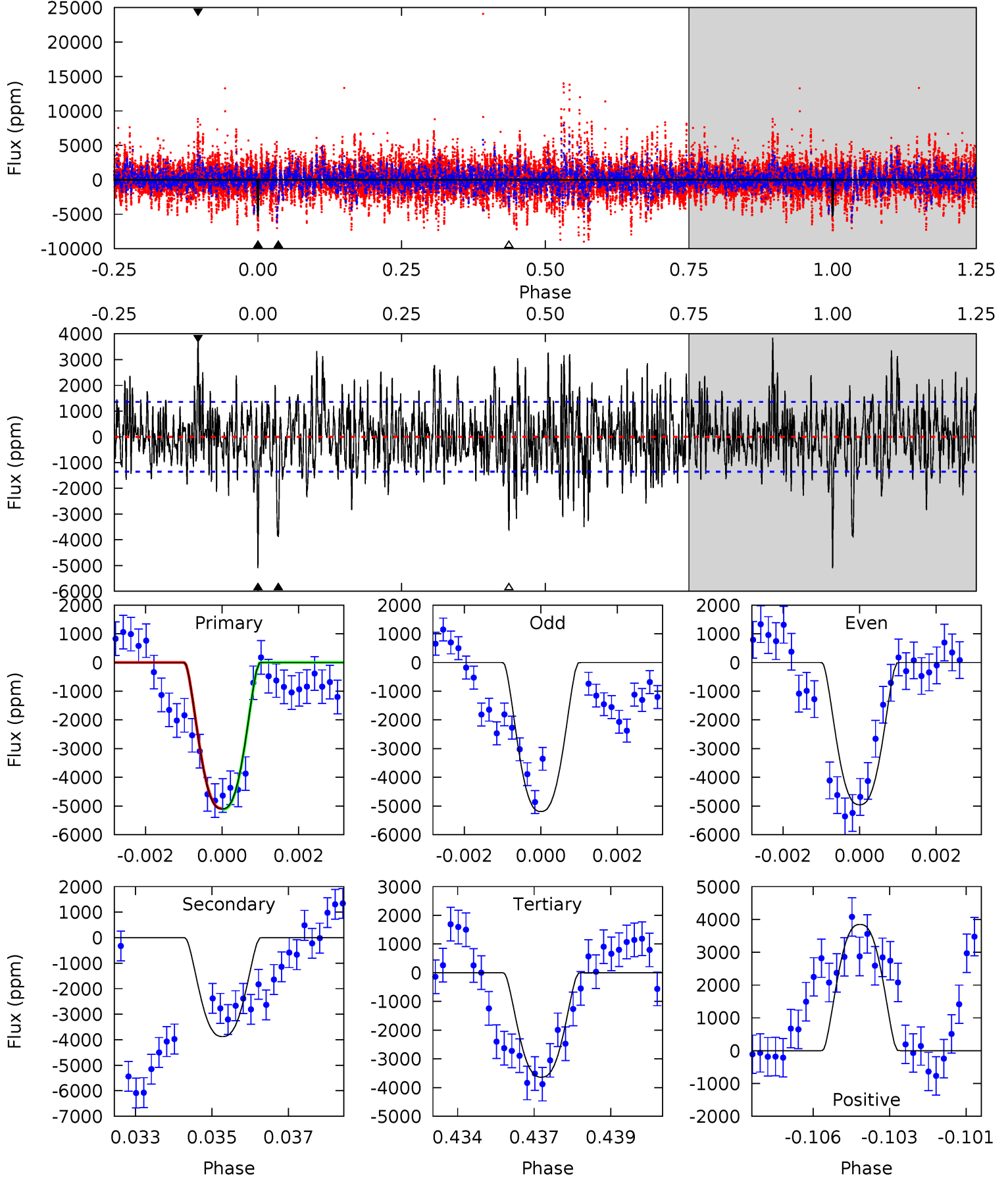
TCE 005811262-02     $P=245.590958$  Days     $T_0=221.542249$  (BKJD)



# DV Model-Shift Uniqueness Test

005811262-02, P = 245.655352 Days, E = 221.389634 Days

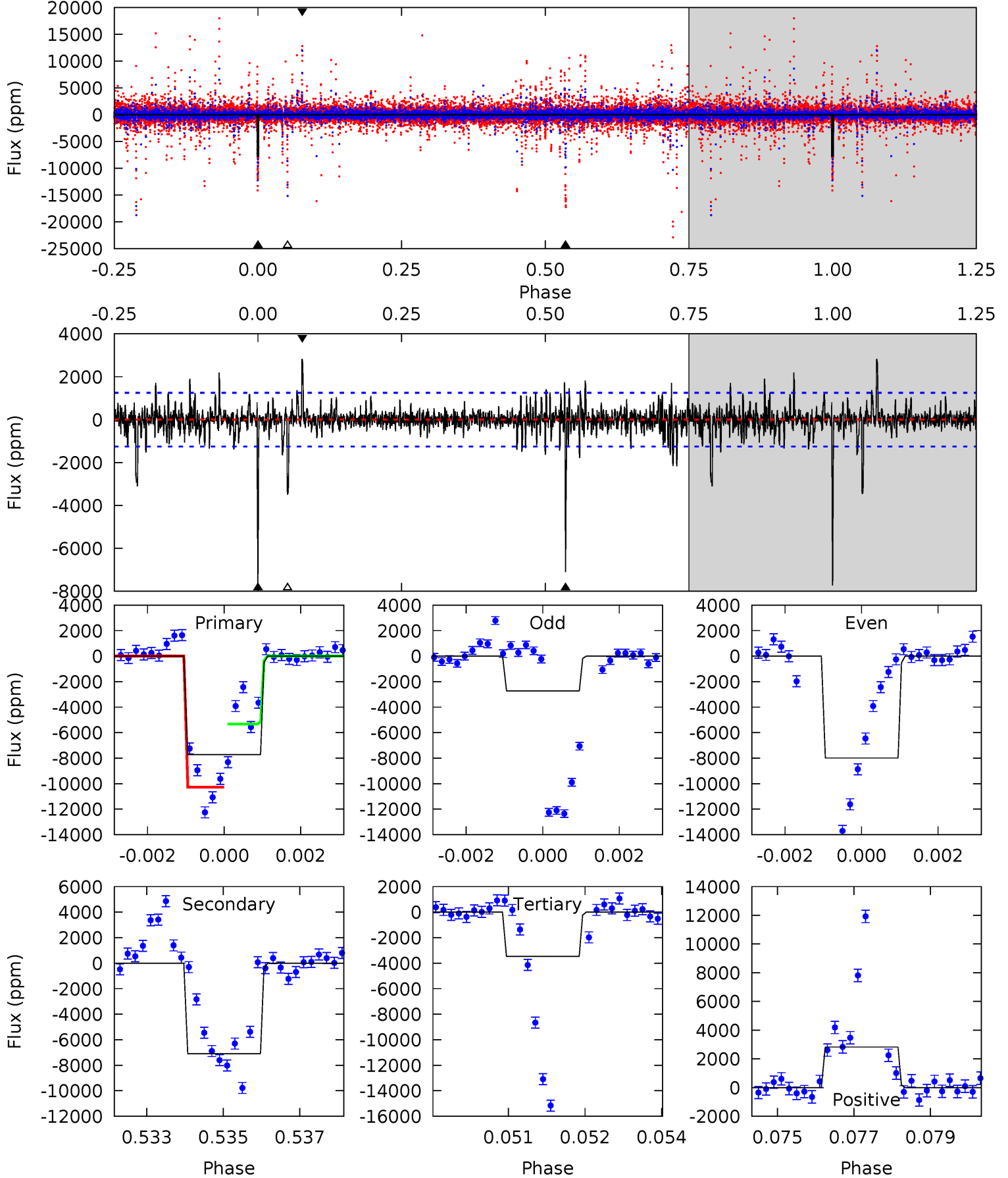
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
20.0	15.2	14.3	15.1	5.32	3.08	4.03	5.75	4.92	0.94	0.11	0.42	0.96	0.43	0.06



# Alt Model-Shift Uniqueness Test

005811262-02, P = 245.590958 Days, E = 221.542249 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
33.0	30.3	14.8	12.1	5.35	3.13	1.86	18.2	20.9	15.5	18.2	9.28	0.30	0.27	10.3



### Stellar Parameters For KIC 005811262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5592^{+167}_{-167}$	$4.612^{+0.040}_{-0.128}$	$-0.500^{+0.300}_{-0.300}$	$0.733^{+0.149}_{-0.053}$	$0.824^{+0.078}_{-0.087}$	$2.948^{+0.509}_{-1.115}$
	+3%/-3%	+1%/-3%	+60%/-60%	+20%/-7%	+9%/-11%	+17%/-38%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005811262-02 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-3877 \pm 255$	$5.80^{+0.71}_{-0.62}$	$355^{+18}_{-14}$	$5307^{+273}_{-280}$	$32303^{+8015}_{-6769}$
Alt.	$-7094 \pm 234$	$4.44^{+0.59}_{-0.60}$	$354^{+18}_{-13}$	$7033^{+636}_{-455}$	$101411^{+33505}_{-21306}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

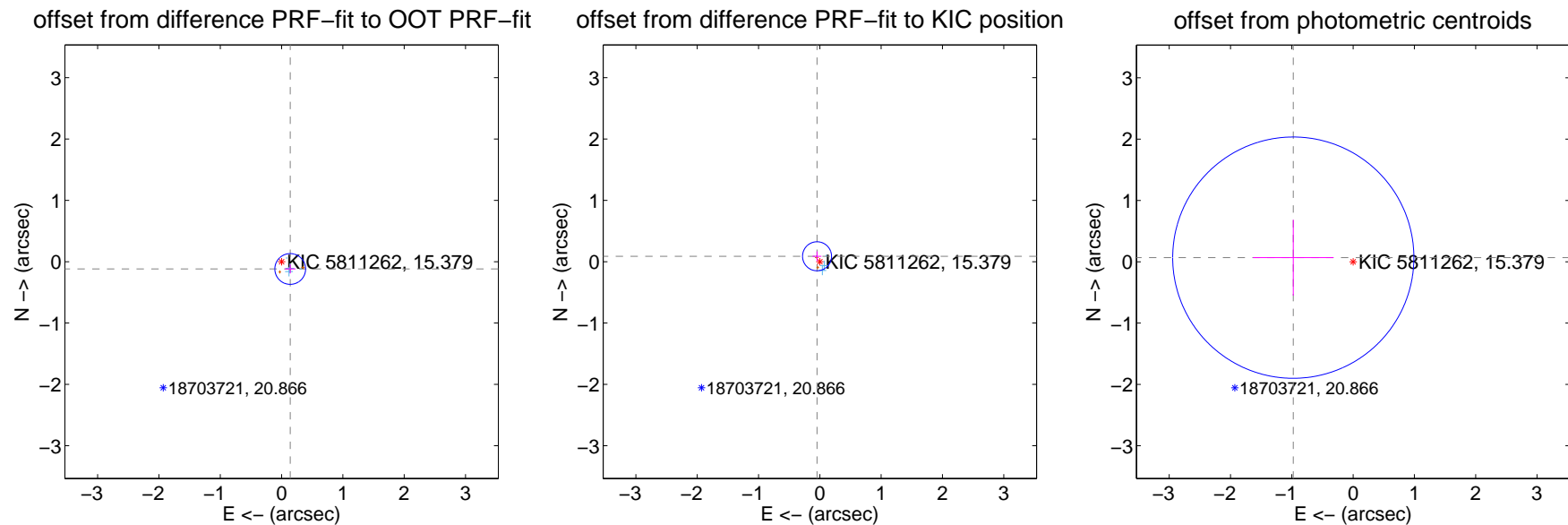
## DV Centroid Data

Supplemental centroid analysis for 005811262-02. Kepler magnitude: 15.38. Transit SNR 7.63

There are 4 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

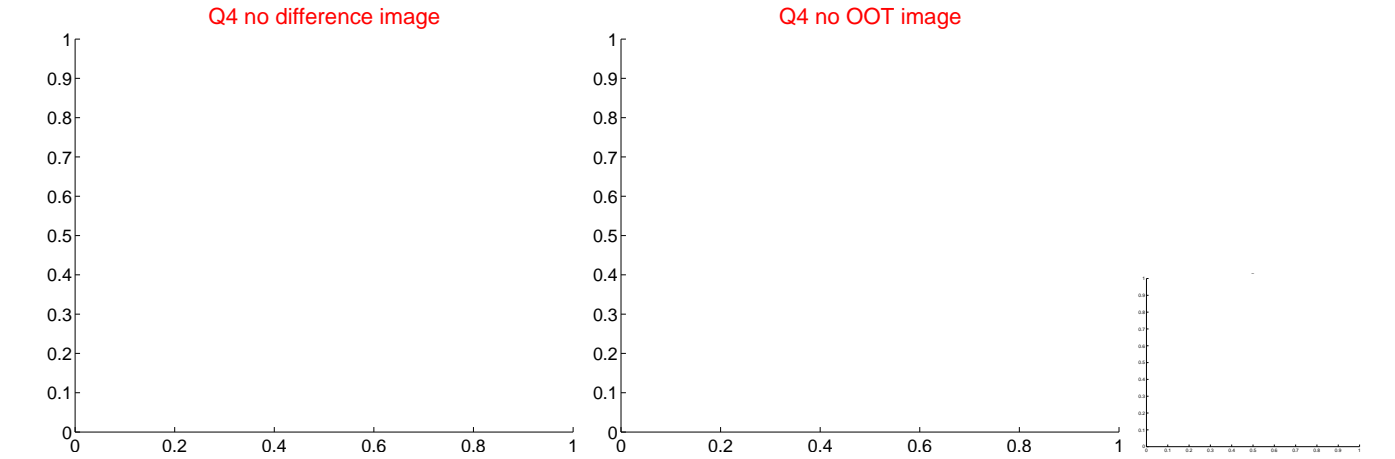
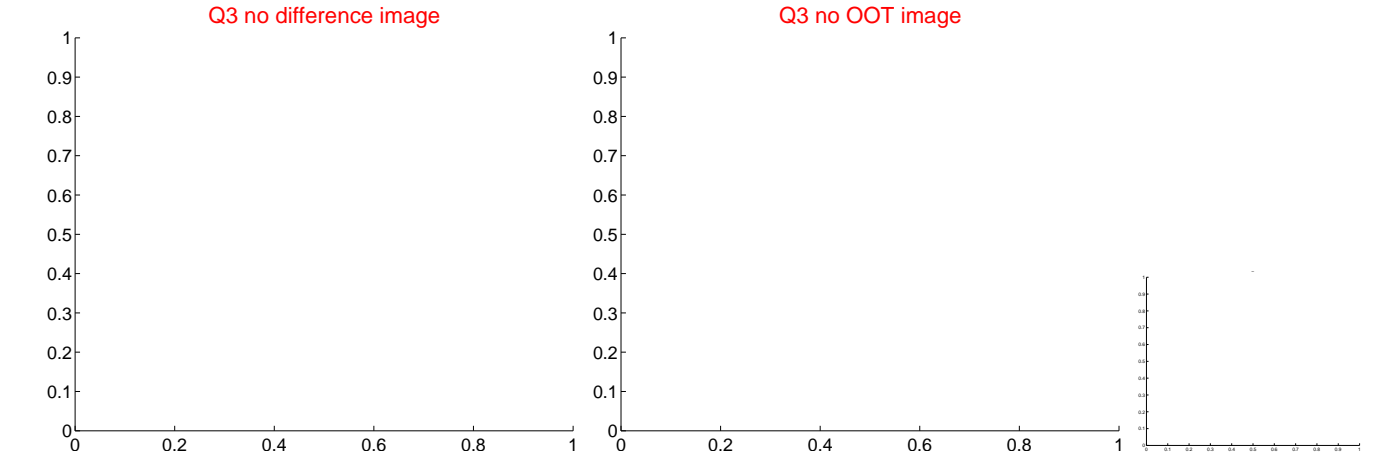
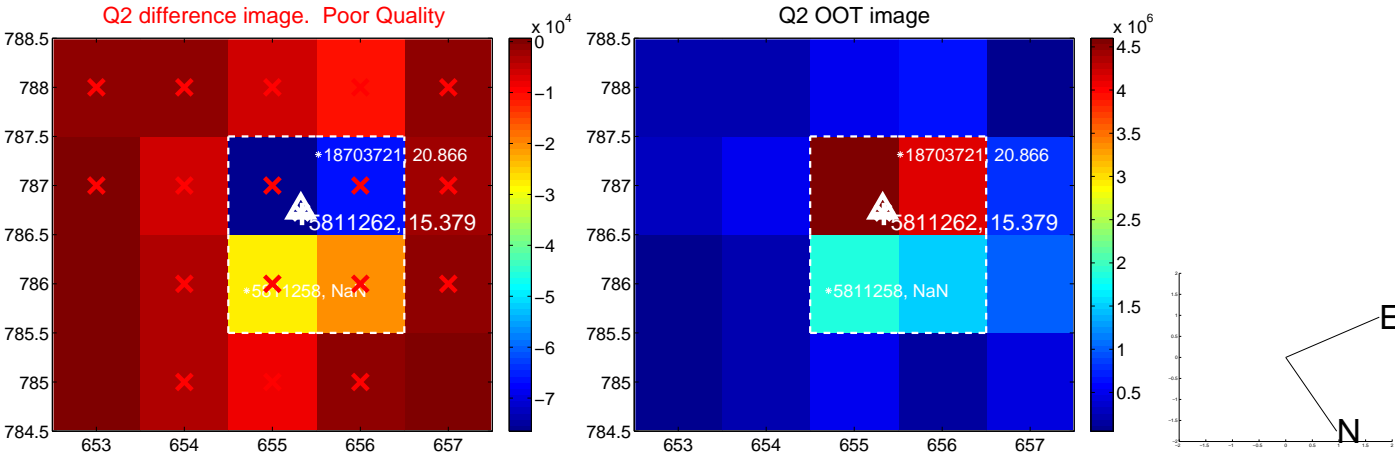
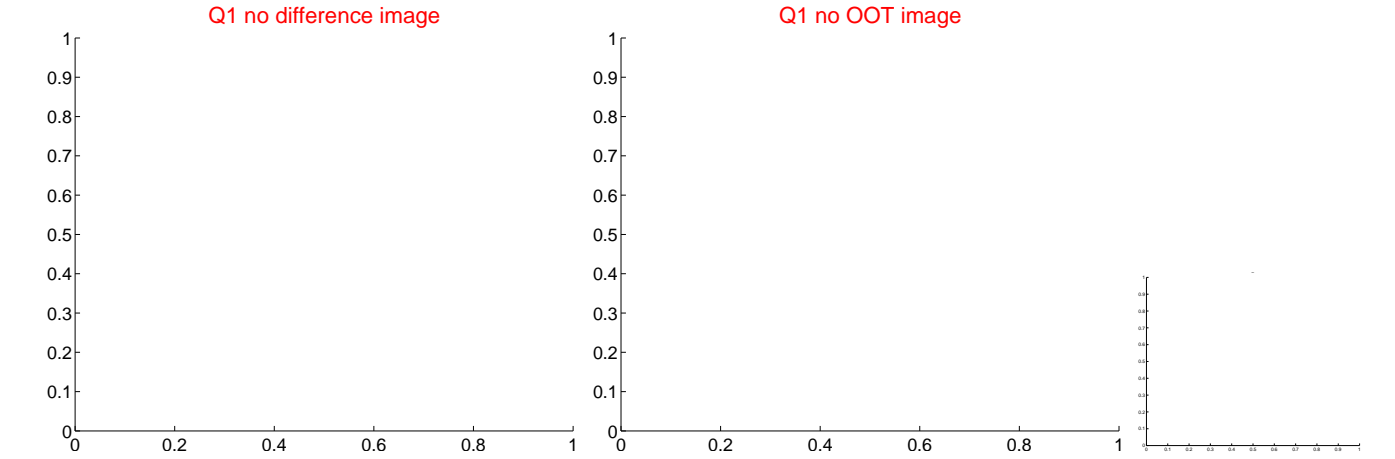
	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.184 \pm 0.084$	2.20	$-0.141 \pm 0.087$	$-0.119 \pm 0.074$
PRF-fit source offset from KIC position	$0.100 \pm 0.079$	1.26	$0.046 \pm 0.072$	$0.088 \pm 0.080$
photometric centroid source offset	$0.98 \pm 0.66$	1.49	$0.98 \pm 0.66$	$0.07 \pm 0.62$



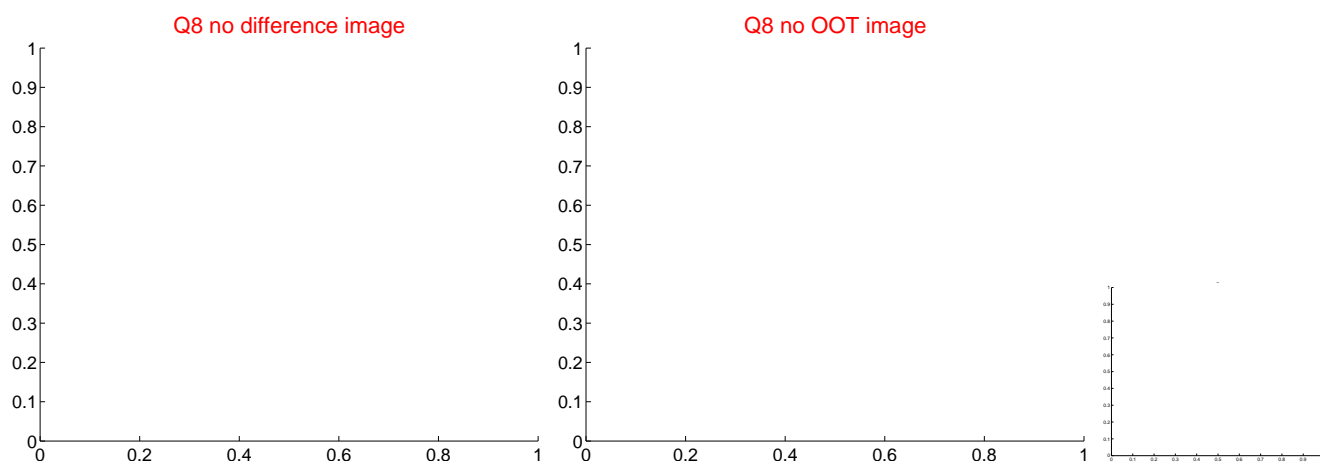
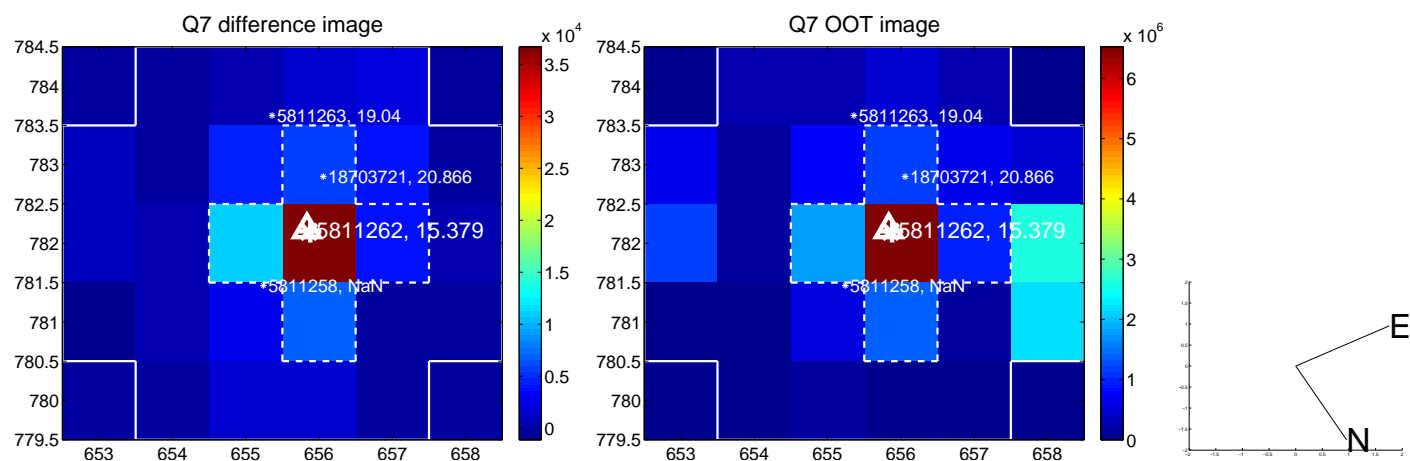
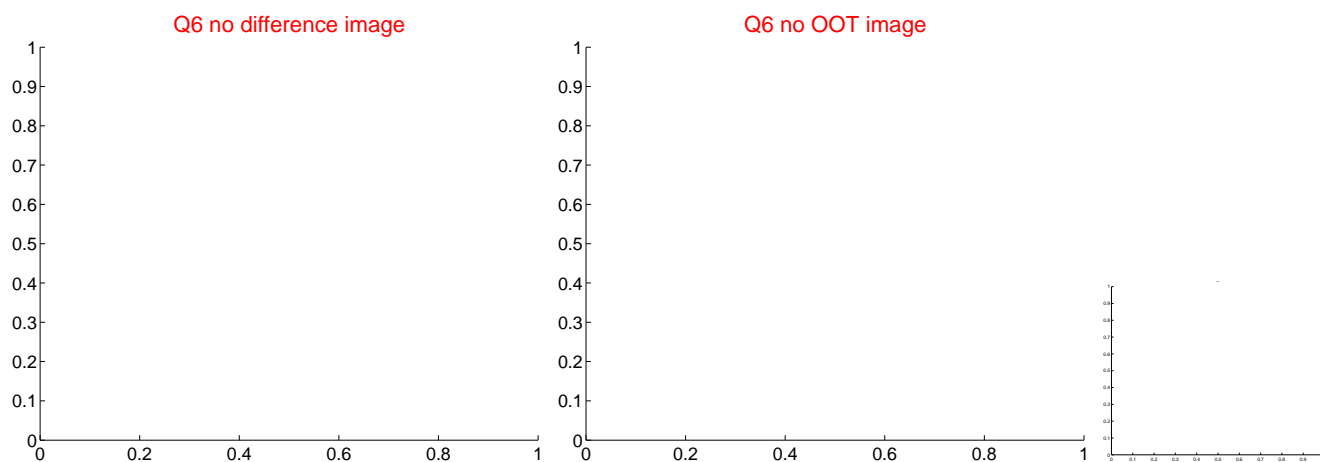
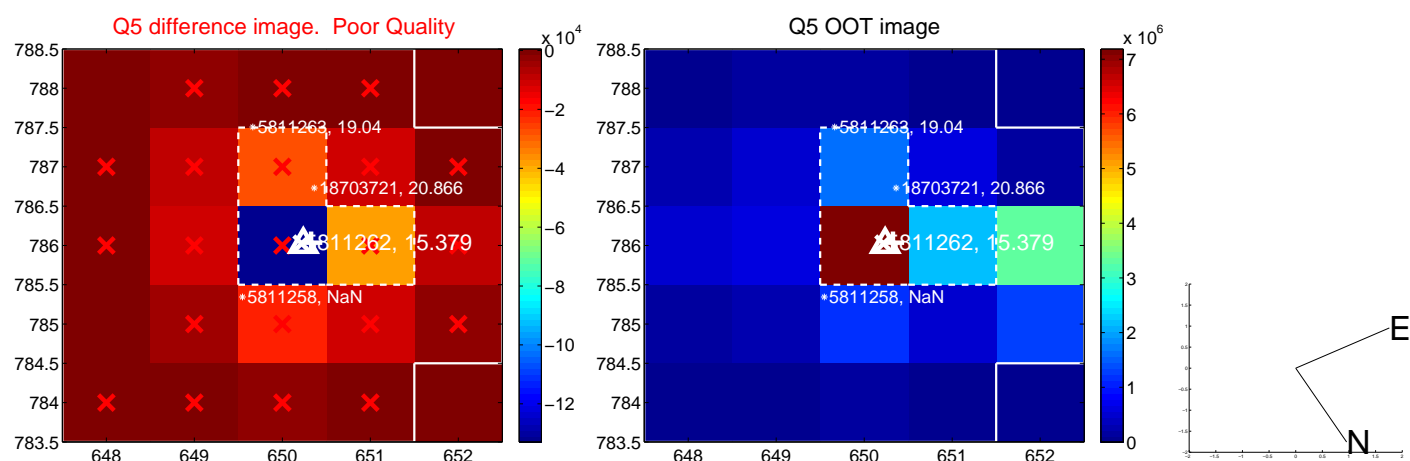
Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.



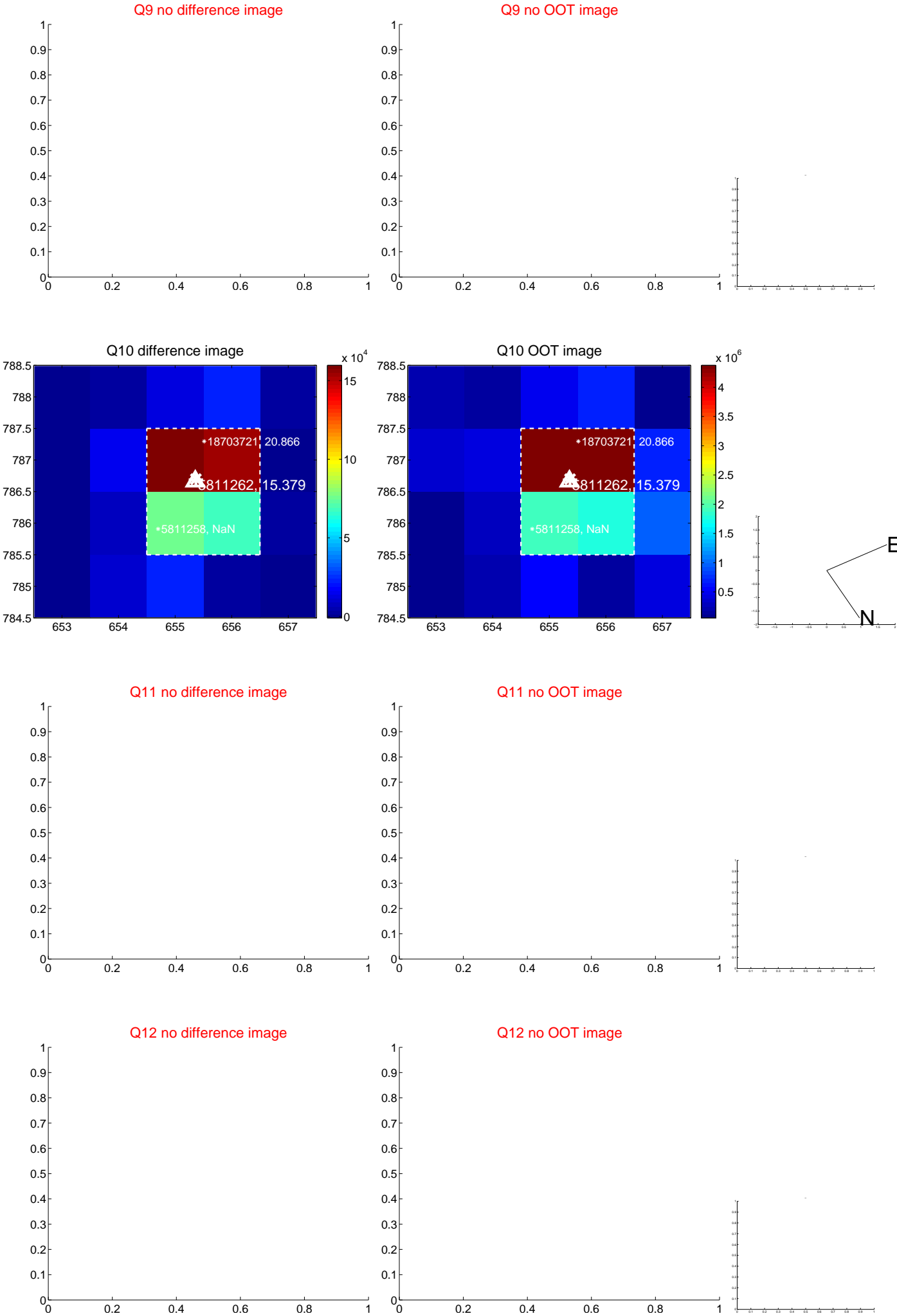
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



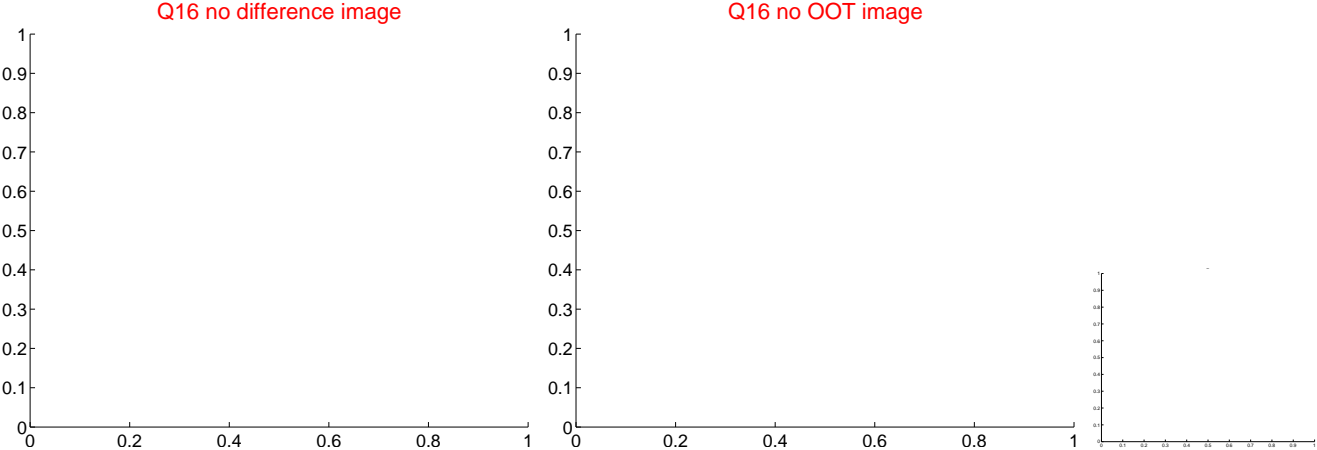
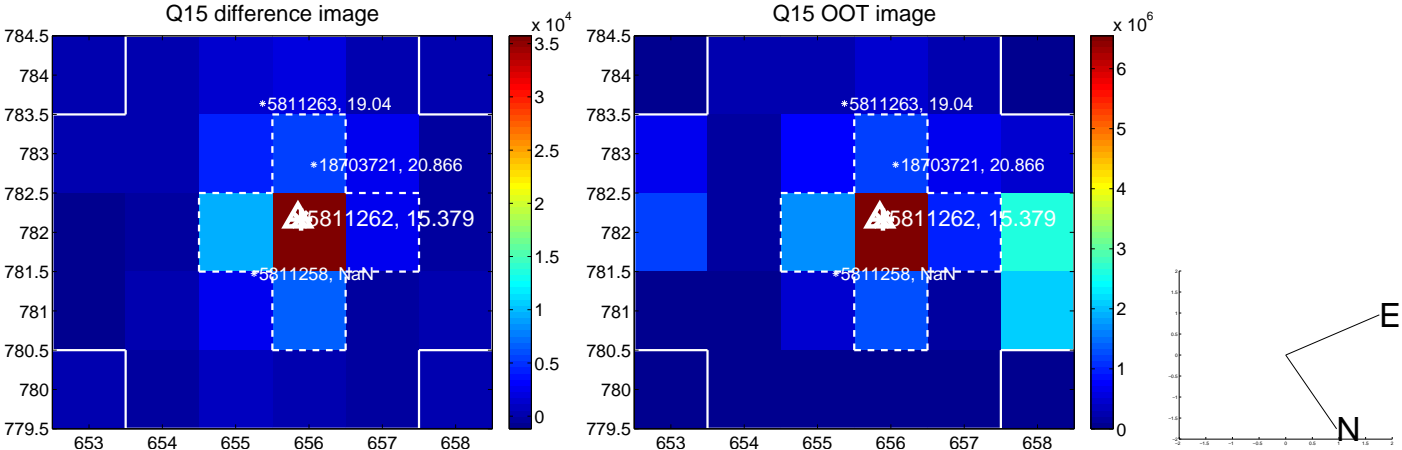
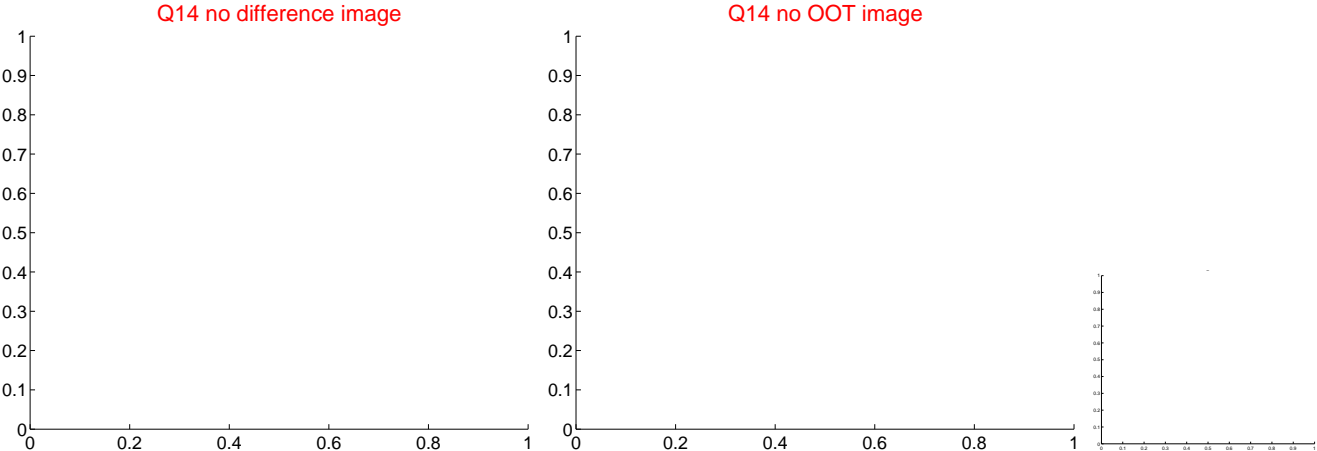
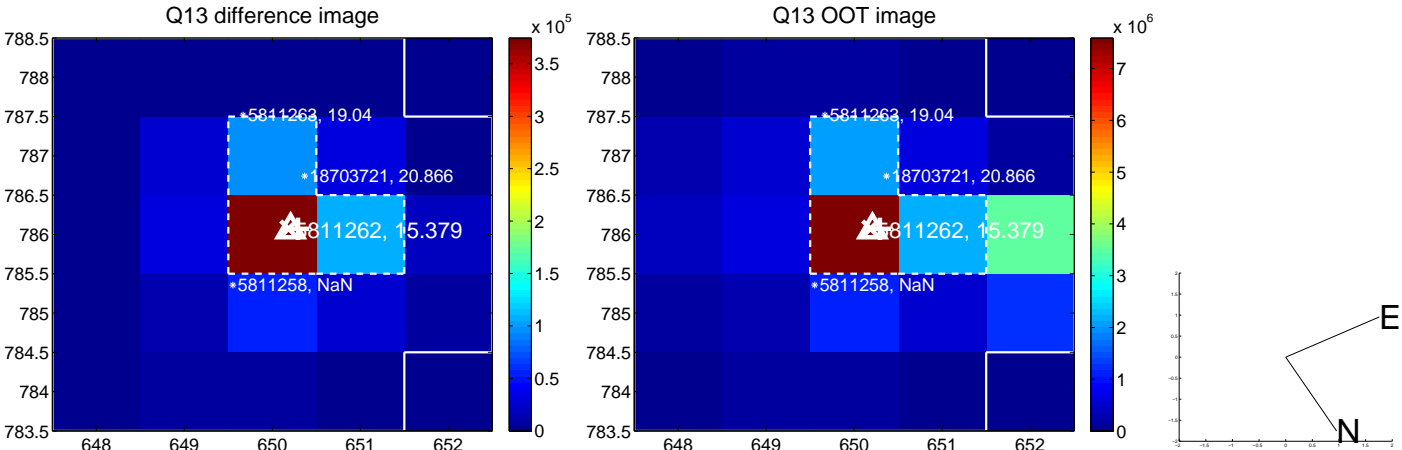
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value



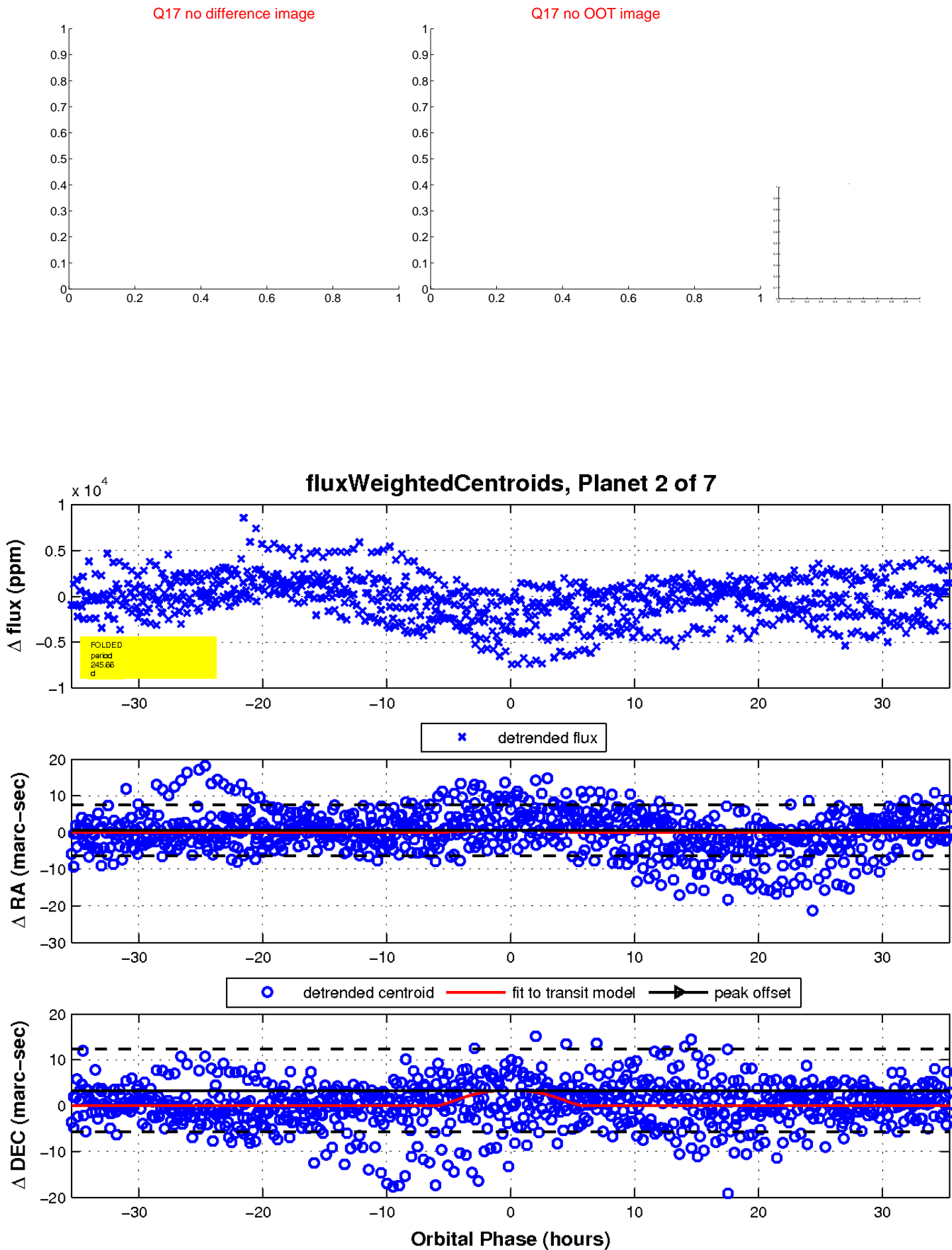
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



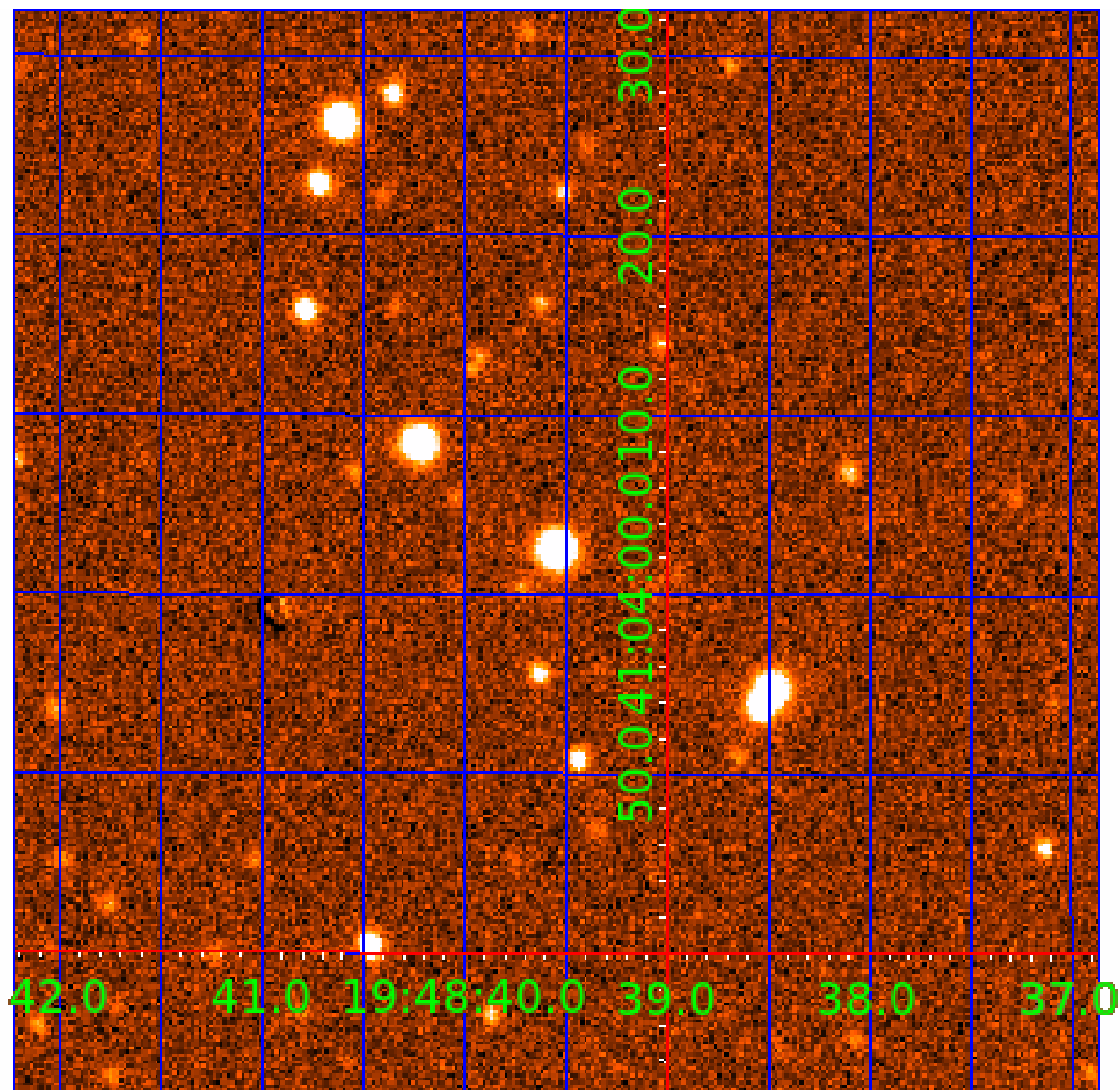
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.





UKIRT Image

Declination



# KIC 005811262

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005811262-01	OBS	No	2.085942	132.005251	386.7	9.623	9.3	12.2	0.73	5592	1.89	533.94
005811262-02	OBS	No	245.655352	221.389634	3920.8	11.816	9.7	7.6	0.73	5592	5.67	0.93
005811262-03	OBS	No	220.192778	343.804573	2701.5	5.650	11.3	7.9	0.73	5592	4.00	1.07
005811262-05	OBS	No	147.648087	260.055114	1301.1	6.000	9.9	-1.0	0.73	5592	2.62	1.82
005811262-07	OBS	No	303.883293	305.110974	2056.1	6.363	9.1	5.8	0.73	5592	3.83	0.70

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005811262-01	OBS	FP	0.00	1	0	0	0	LPP_DV
005811262-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
005811262-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005811262-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST
005811262-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

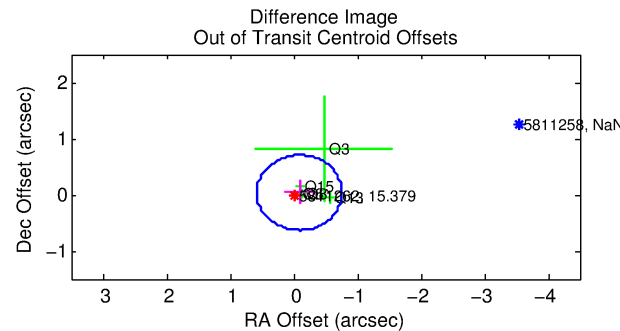
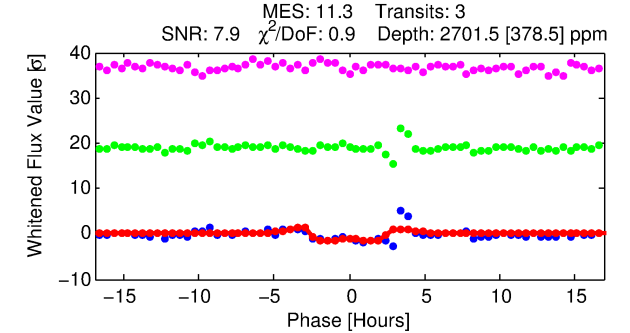
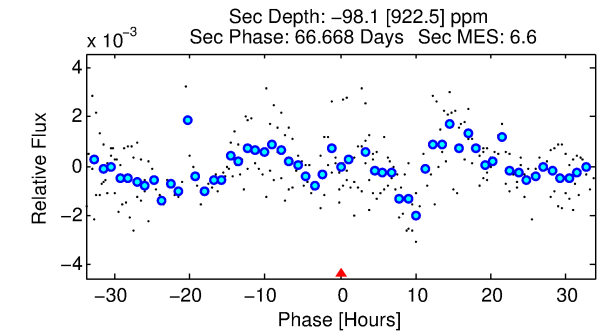
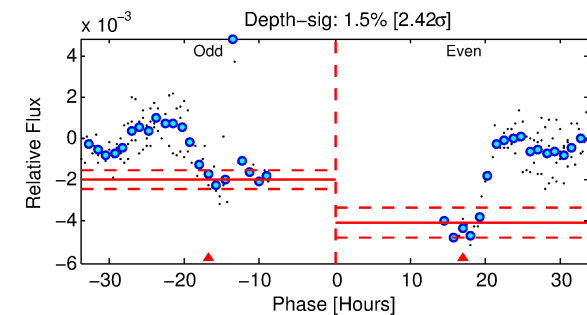
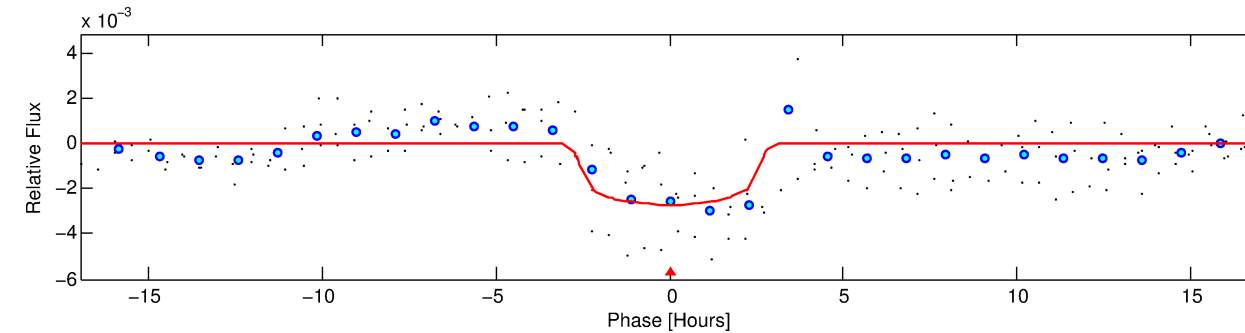
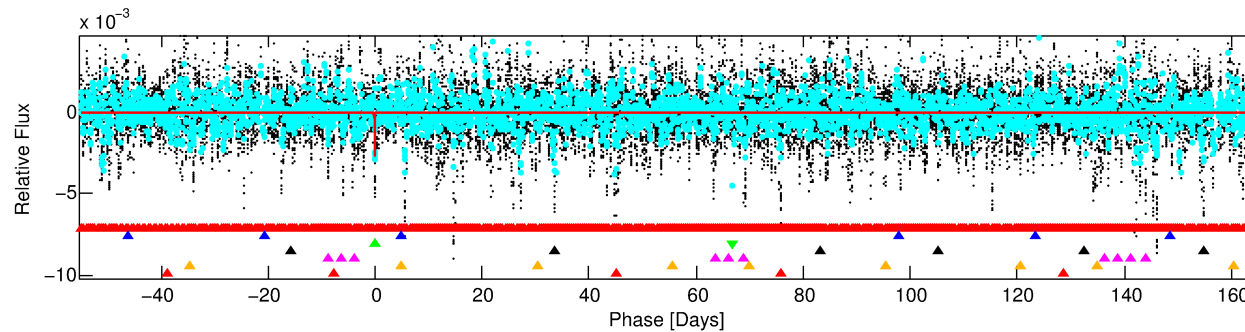
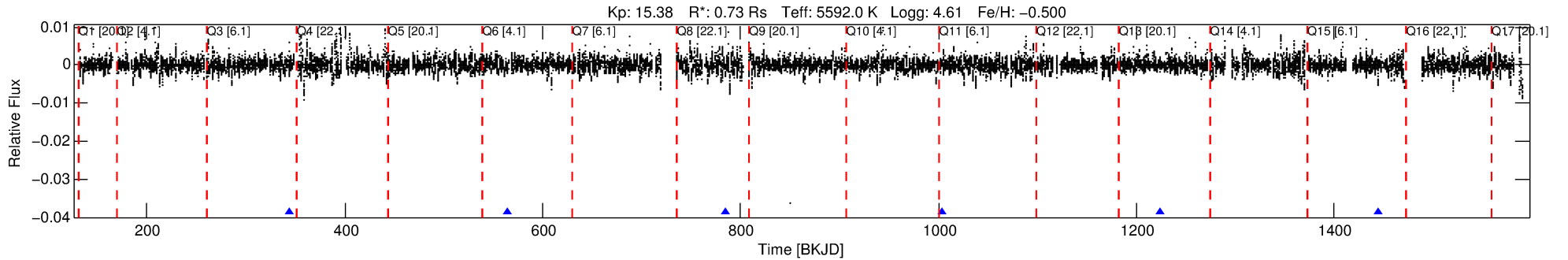
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005811262-03

No Significant Match Found

# DV One-Page Summary

KIC: 5811262 Candidate: 3 of 7 Period: 220.193 d



## DV Fit Results:

Period = 220.19278 [0.00219] d  
Epoch = 343.8046 [0.0065] BKJD  
Rp/R\* = 0.0500 [0.0176]  
a/R\* = 249.74 [359.13]  
b = 0.63 [1.40]  
Seff = 1.07 [0.29]  
Teq = 259 [17] K  
Rp = 4.00 [1.63] Re  
a = 0.6632 [0.1110] AU  
Ag = N/A  
Teffp = N/A

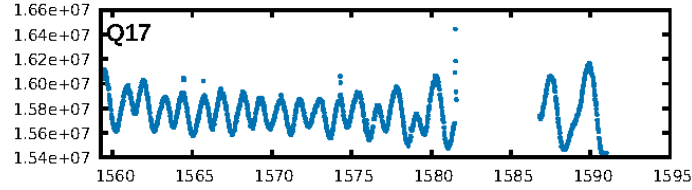
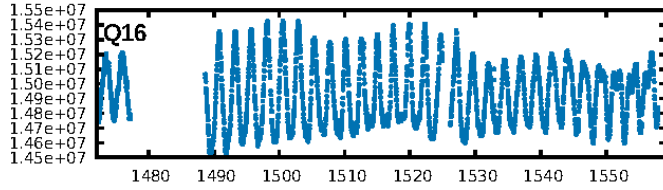
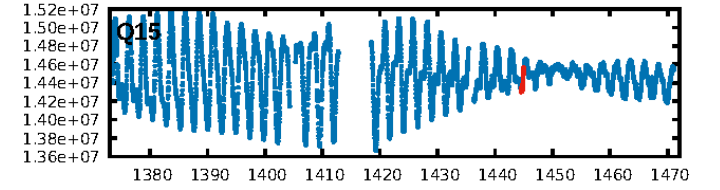
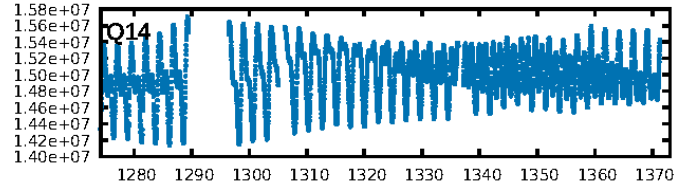
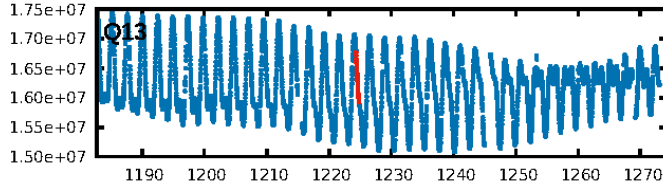
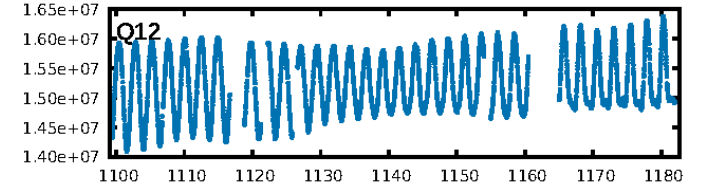
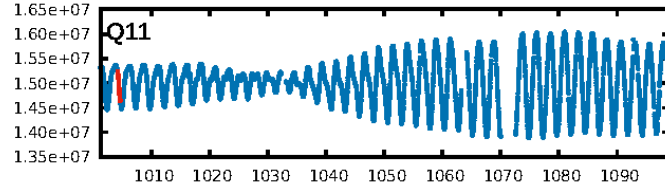
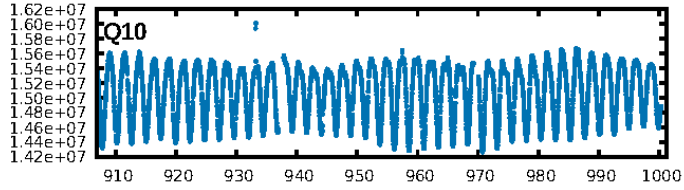
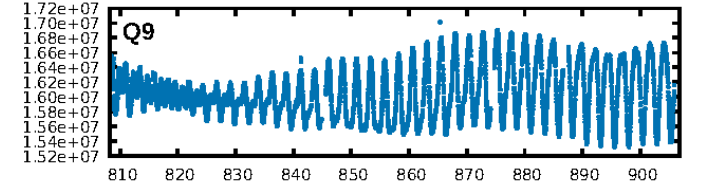
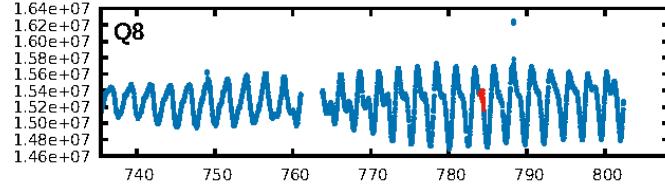
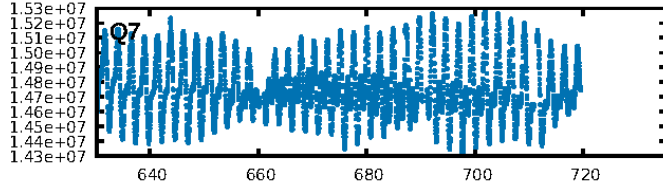
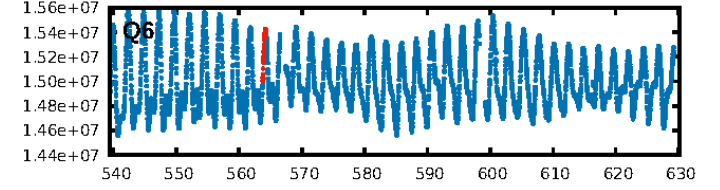
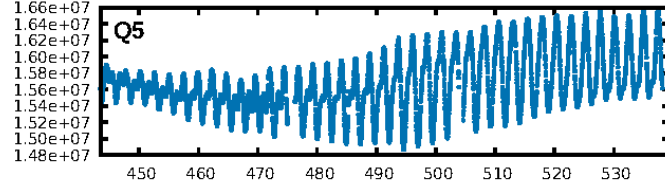
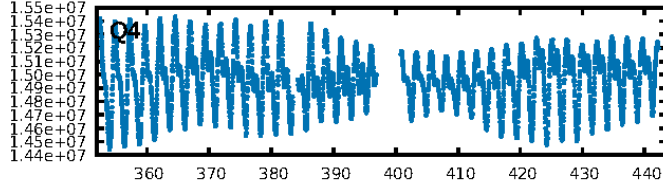
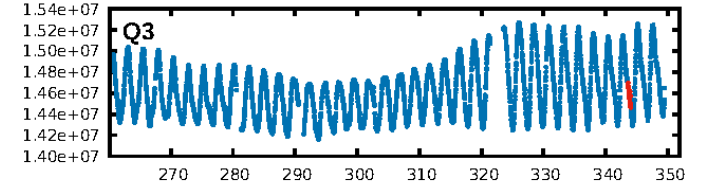
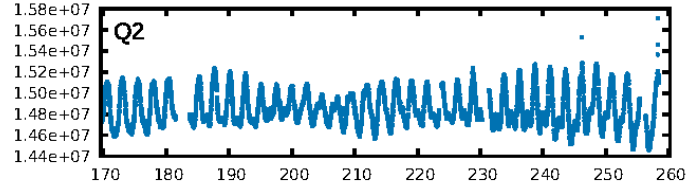
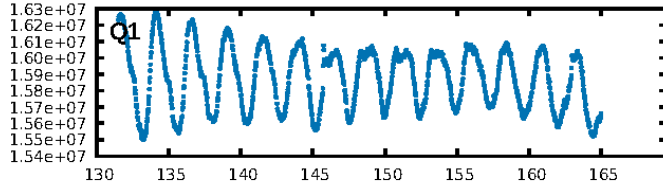
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [229.76 $\sigma$ ]  
LongPeriod-sig: 100.0% [46.66 $\sigma$ ]  
ModelChiSquare2-sig: 2.1%  
ModelChiSquareGof-sig: 86.0%  
**Bootstrap-pfa: 1.40e-11**  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 2.182  
Centroid-sig: 8.0%  
Centroid-so: 0.929 arcsec [1.11 $\sigma$ ]  
OotOffset-rm: 0.096 arcsec [0.43 $\sigma$ ]  
KicOffset-rm: 0.128 arcsec [0.60 $\sigma$ ]  
OotOffset-st: 1/2/1/1 [5]  
KicOffset-st: 1/2/1/1 [5]  
DiffImageQuality-fgm: 0.40 [2/5]  
DiffImageOverlap-fno: 0.60 [3/5]

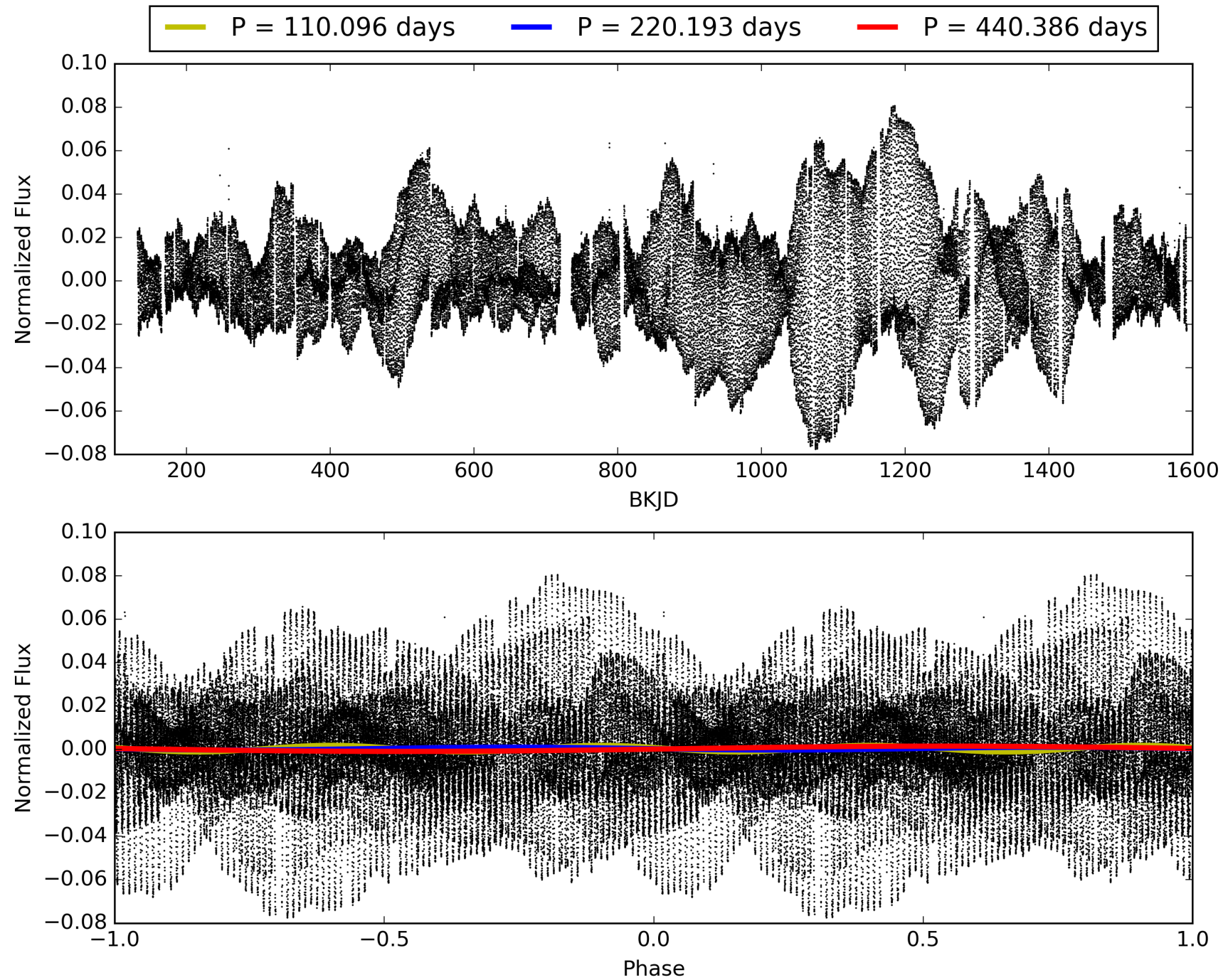
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:54:48 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 005811262-03, PDC Light Curves

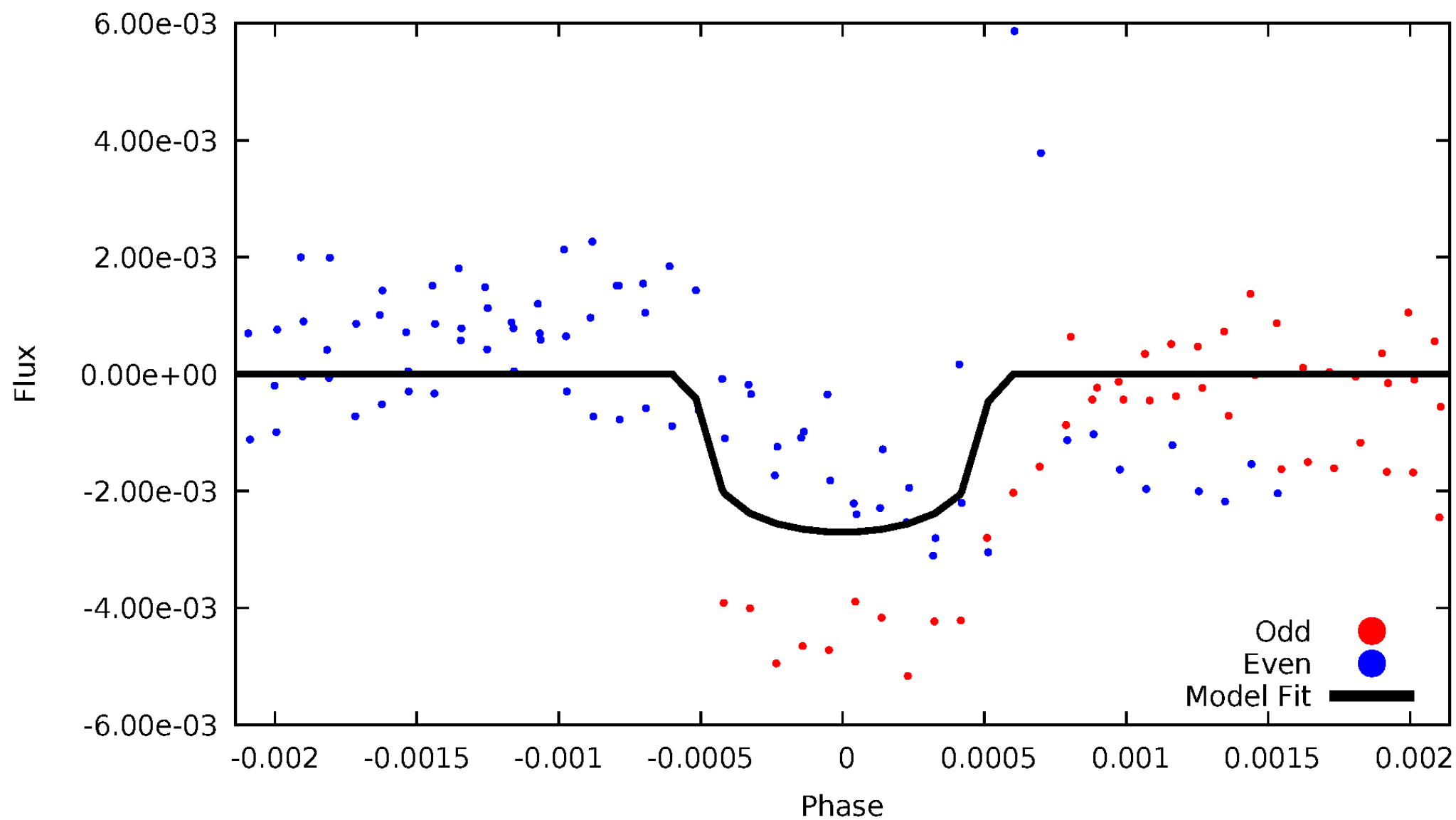


TCE 005811262-03



# DV Odd/Even

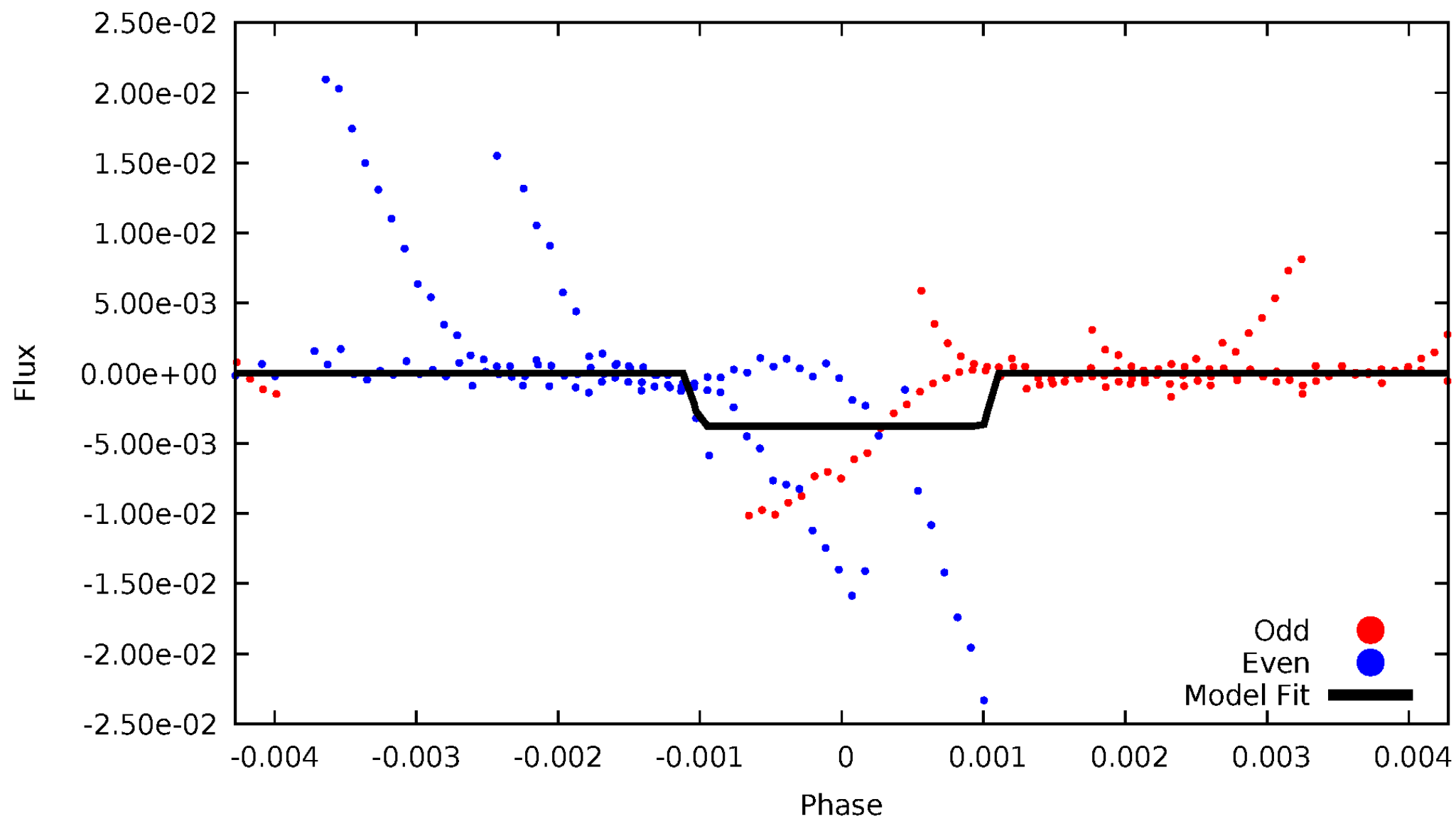
TCE 005811262-03





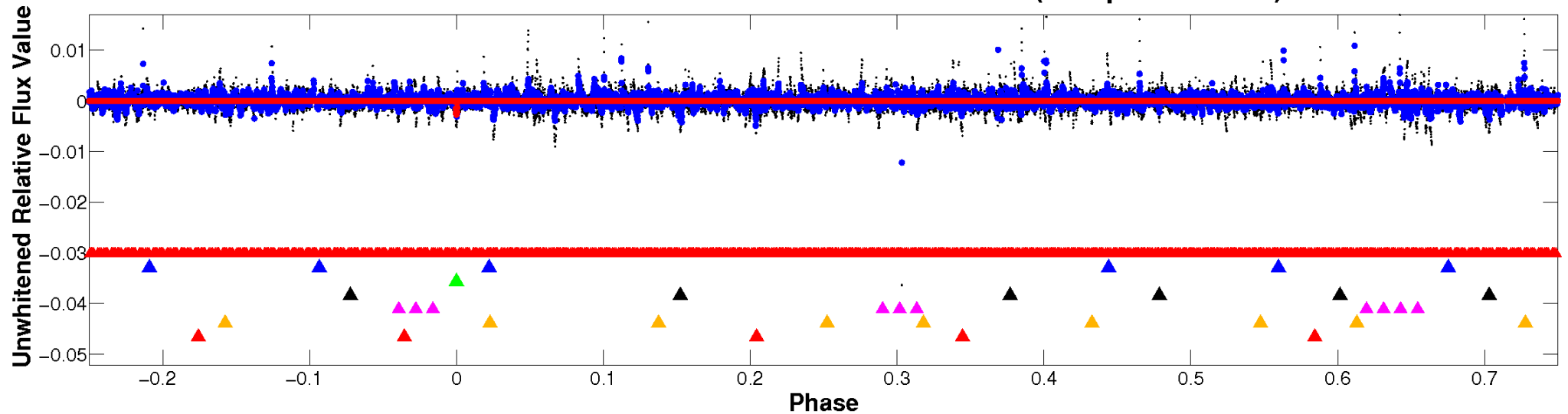
# ALT Odd/Even

TCE 005811262-03

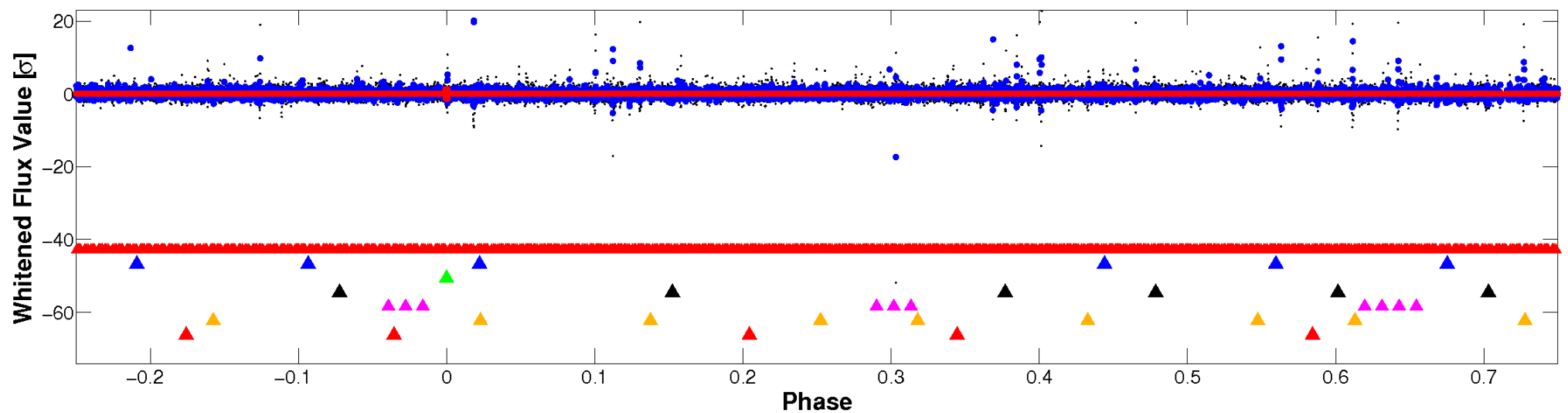


# Non-Whitened Vs. Whitened Light Curve

## Planet 3 : Phased Unwhitened Flux Time Series (Fit Epoch/Period)

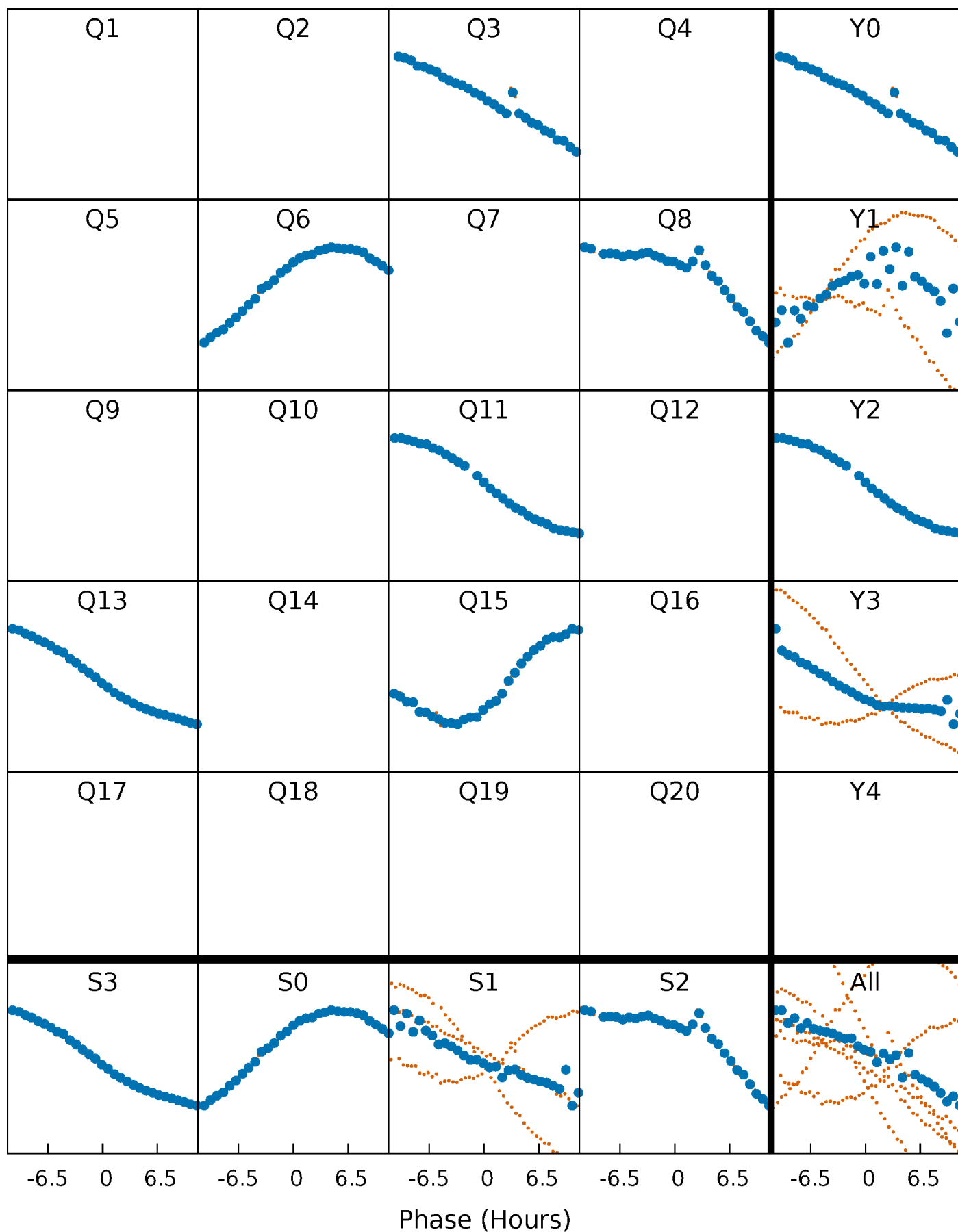


## Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



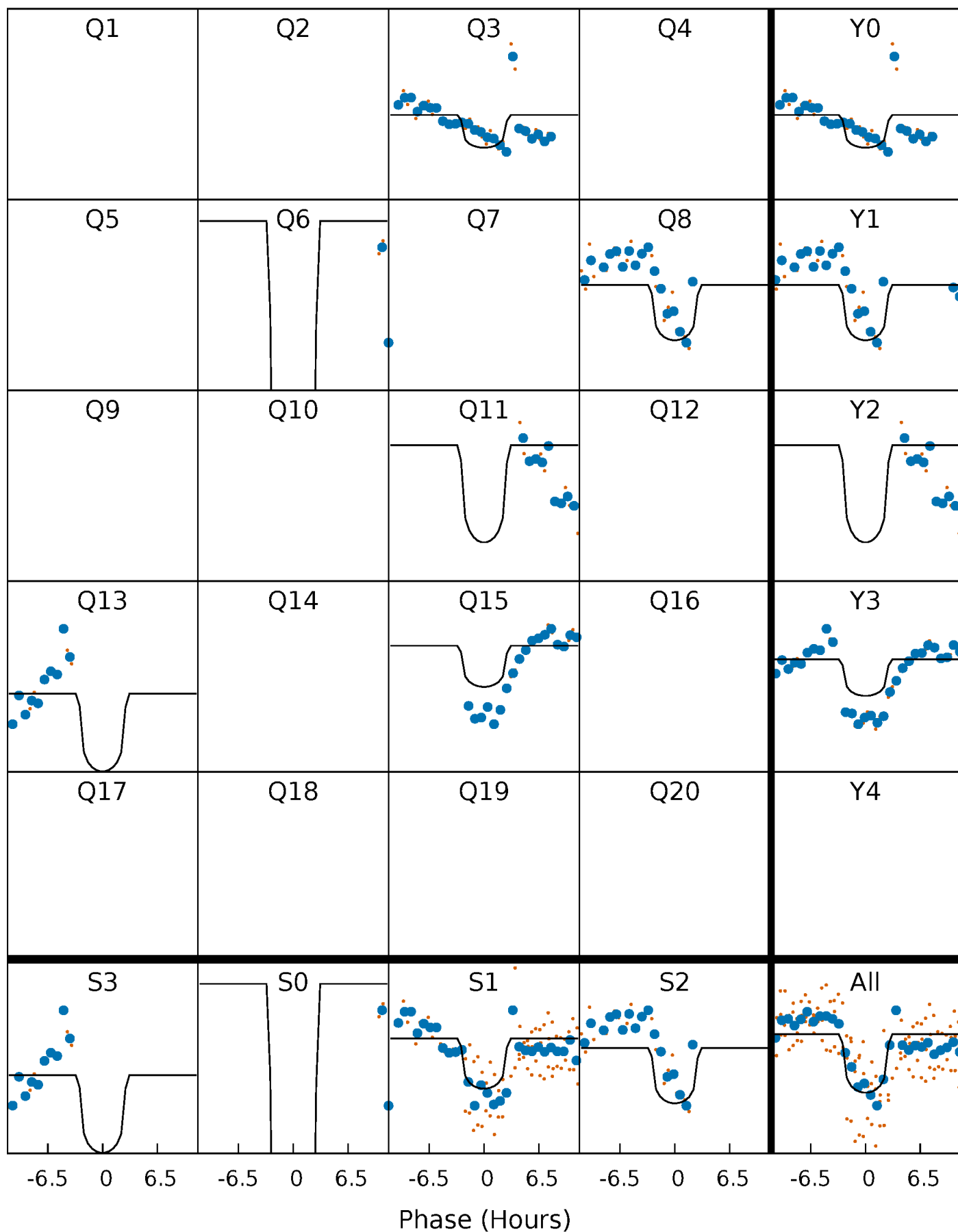
# PDC Quarter-Phased Transit Curves

TCE 005811262-03     $P=220.192778$  Days     $T_0=343.804573$  (BKJD)



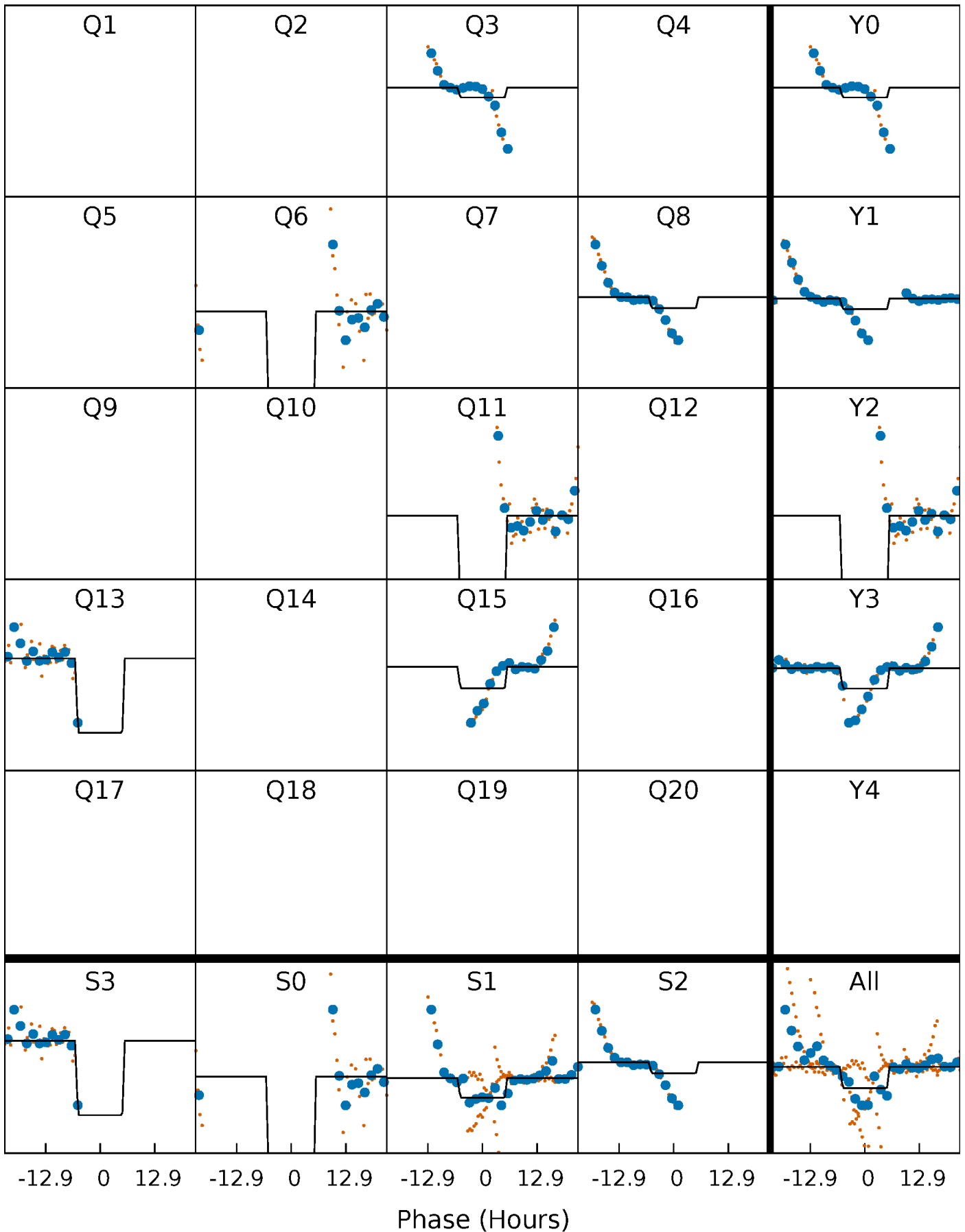
# DV Quarter-Phased Transit Curves

TCE 005811262-03     $P=220.192778$  Days     $T_0=343.804573$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

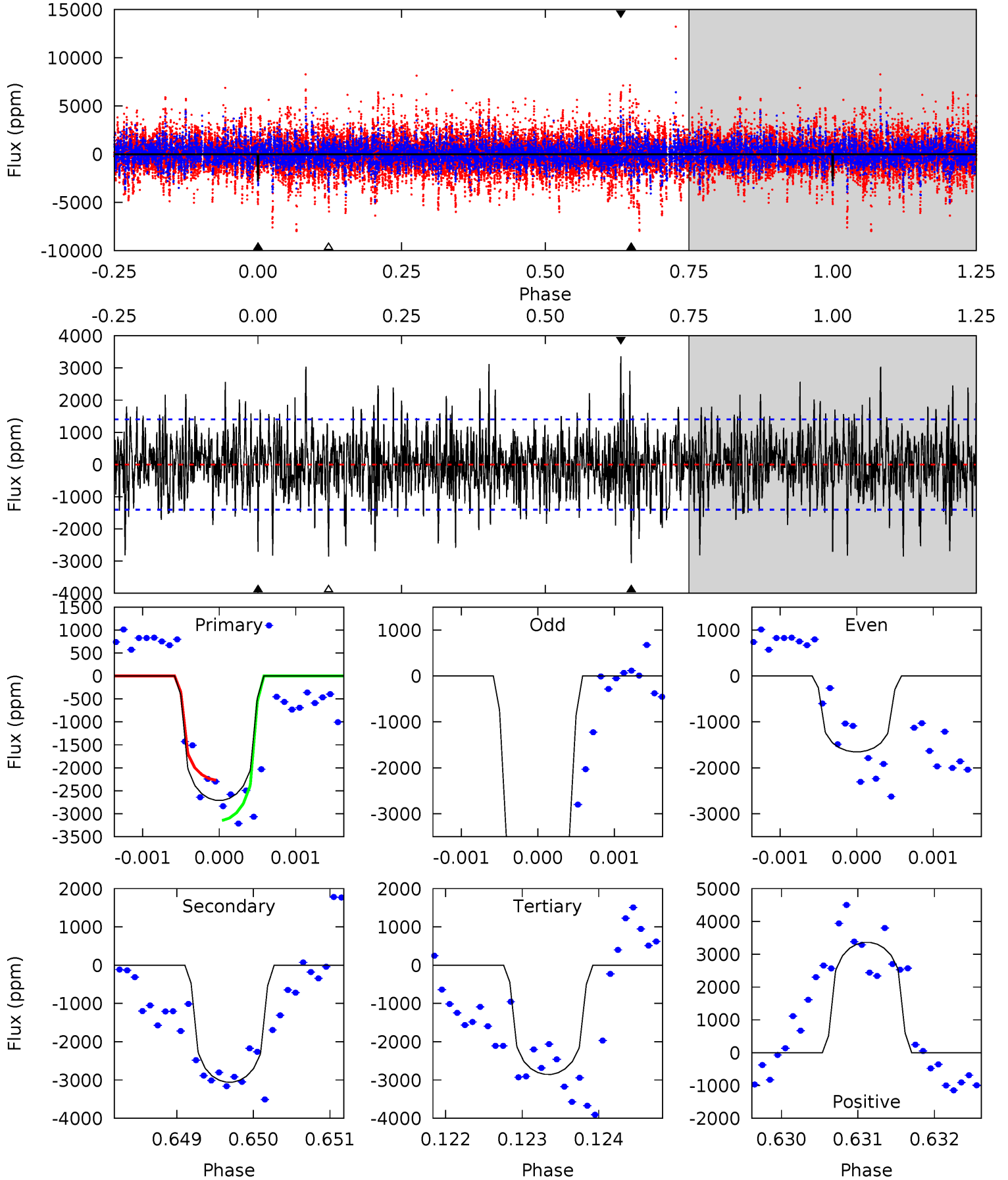
TCE 005811262-03 P=220.192043 Days  $T_0=343.860169$  (BKJD)



# DV Model-Shift Uniqueness Test

005811262-03, P = 220.192778 Days, E = 123.611795 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	11.9	11.1	13.1	5.45	3.28	2.95	-0.56	-2.53	0.79	-1.18	5.77	1.49	0.52	1.71

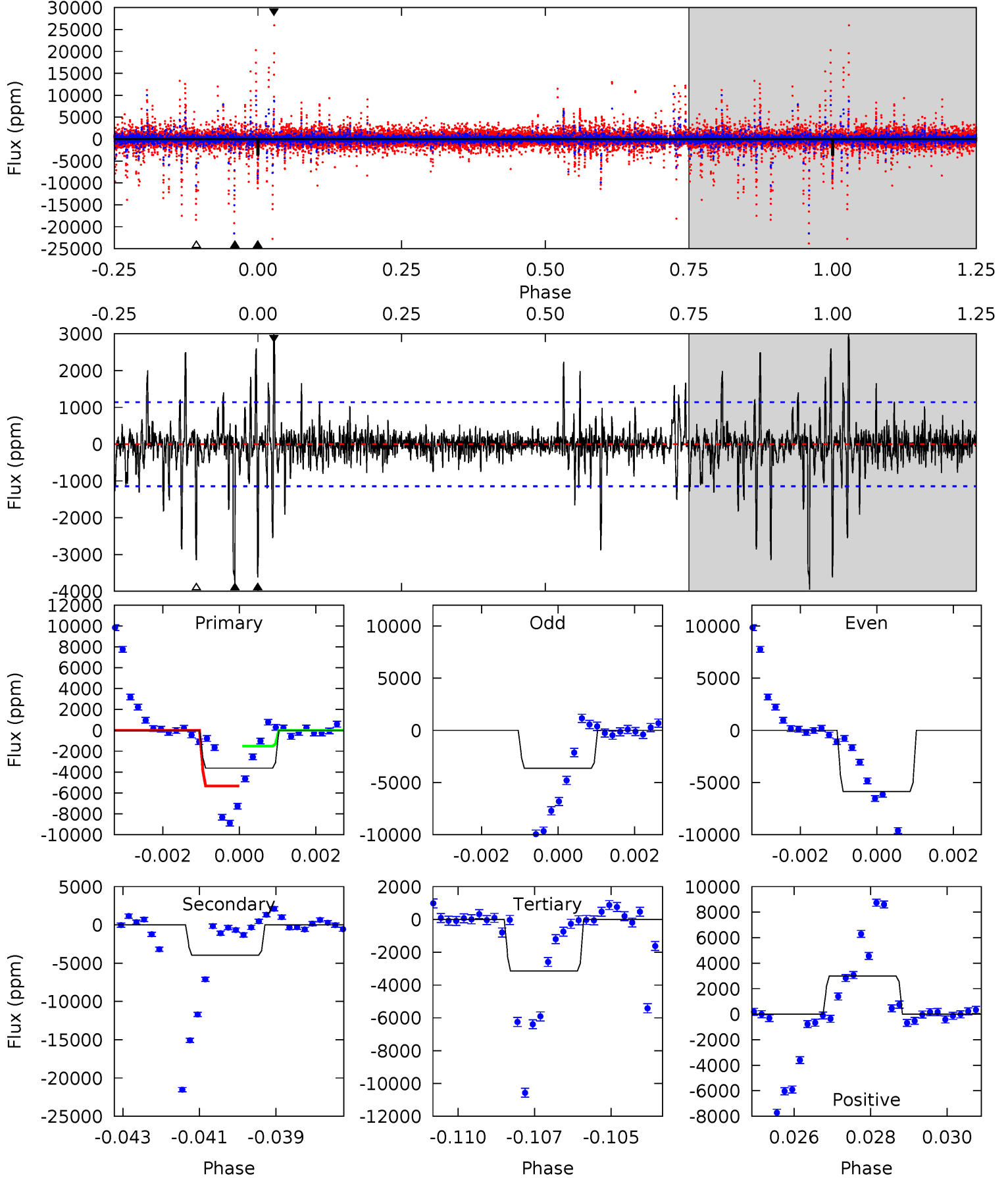




# Alt Model-Shift Uniqueness Test

005811262-03, P = 220.192043 Days, E = 123.668126 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
16.8	18.4	14.6	13.9	5.31	3.07	2.06	2.23	2.98	3.79	4.53	4.13	0.83	0.43	9.12



### Stellar Parameters For KIC 005811262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5592^{+167}_{-167}$	$4.612^{+0.040}_{-0.128}$	$-0.500^{+0.300}_{-0.300}$	$0.733^{+0.149}_{-0.053}$	$0.824^{+0.078}_{-0.087}$	$2.948^{+0.509}_{-1.115}$
	+3%/-3%	+1%/-3%	+60%/-60%	+20%/-7%	+9%/-11%	+17%/-38%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005811262-03 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-3055 \pm 257$	$4.21^{+1.42}_{-1.48}$	$368^{+18}_{-15}$	$5860^{+1458}_{-762}$	$41504^{+58374}_{-18348}$
Alt.	$-3954 \pm 215$	$5.13^{+1.52}_{-1.63}$	$368^{+17}_{-14}$	$5643^{+1102}_{-601}$	$36654^{+37766}_{-14291}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

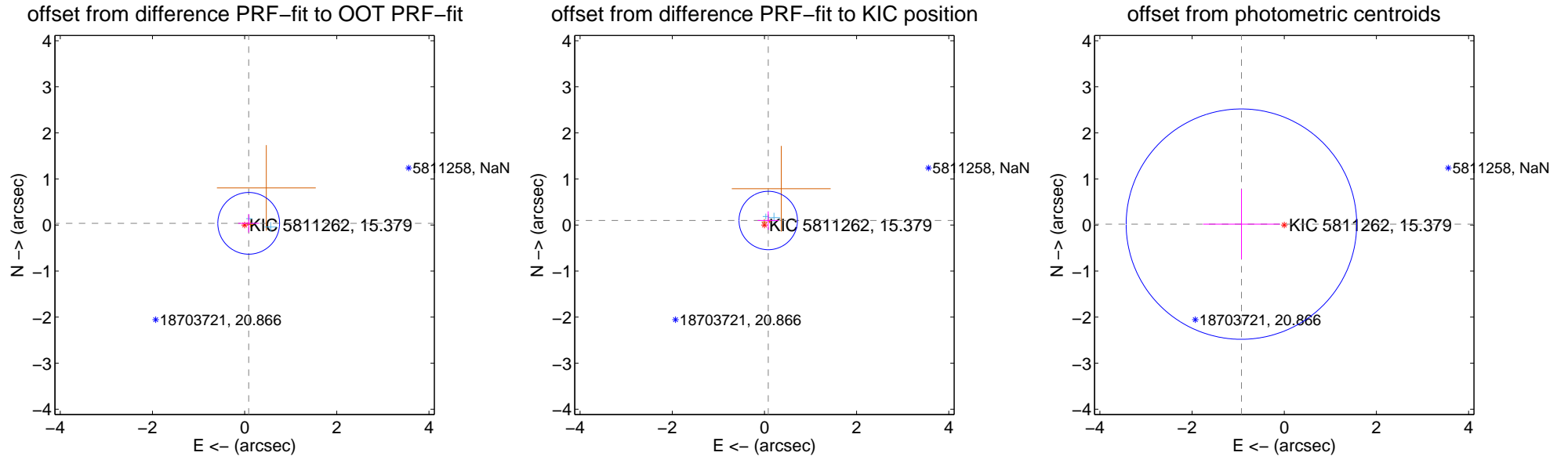
## DV Centroid Data

Supplemental centroid analysis for 005811262-03. Kepler magnitude: 15.38. Transit SNR 7.91

There are 2 quarters with good PRF difference image offsets

The direct PRF centroid is offset from the target star catalog position by about 0.08 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.096 \pm 0.223$	0.43	$-0.088 \pm 0.227$	$0.036 \pm 0.200$
PRF-fit source offset from KIC position	$0.128 \pm 0.211$	0.60	$-0.082 \pm 0.227$	$0.098 \pm 0.200$
photometric centroid source offset	$0.93 \pm 0.83$	1.11	$0.93 \pm 0.83$	$0.02 \pm 0.76$



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000, are from the UKIRT catalog.

white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

Q1 no difference image



Q1 no OOT image



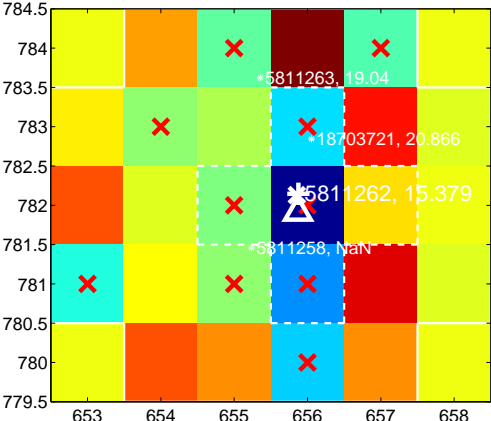
Q2 no difference image



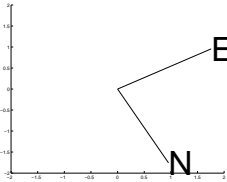
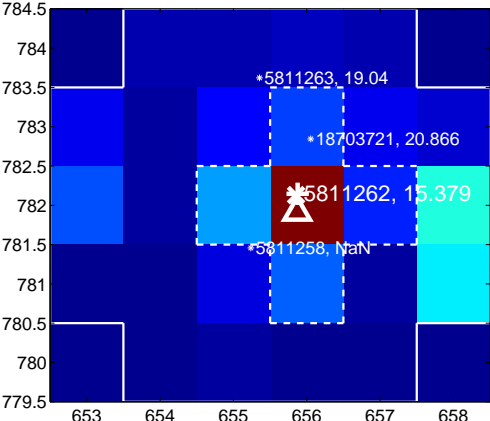
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



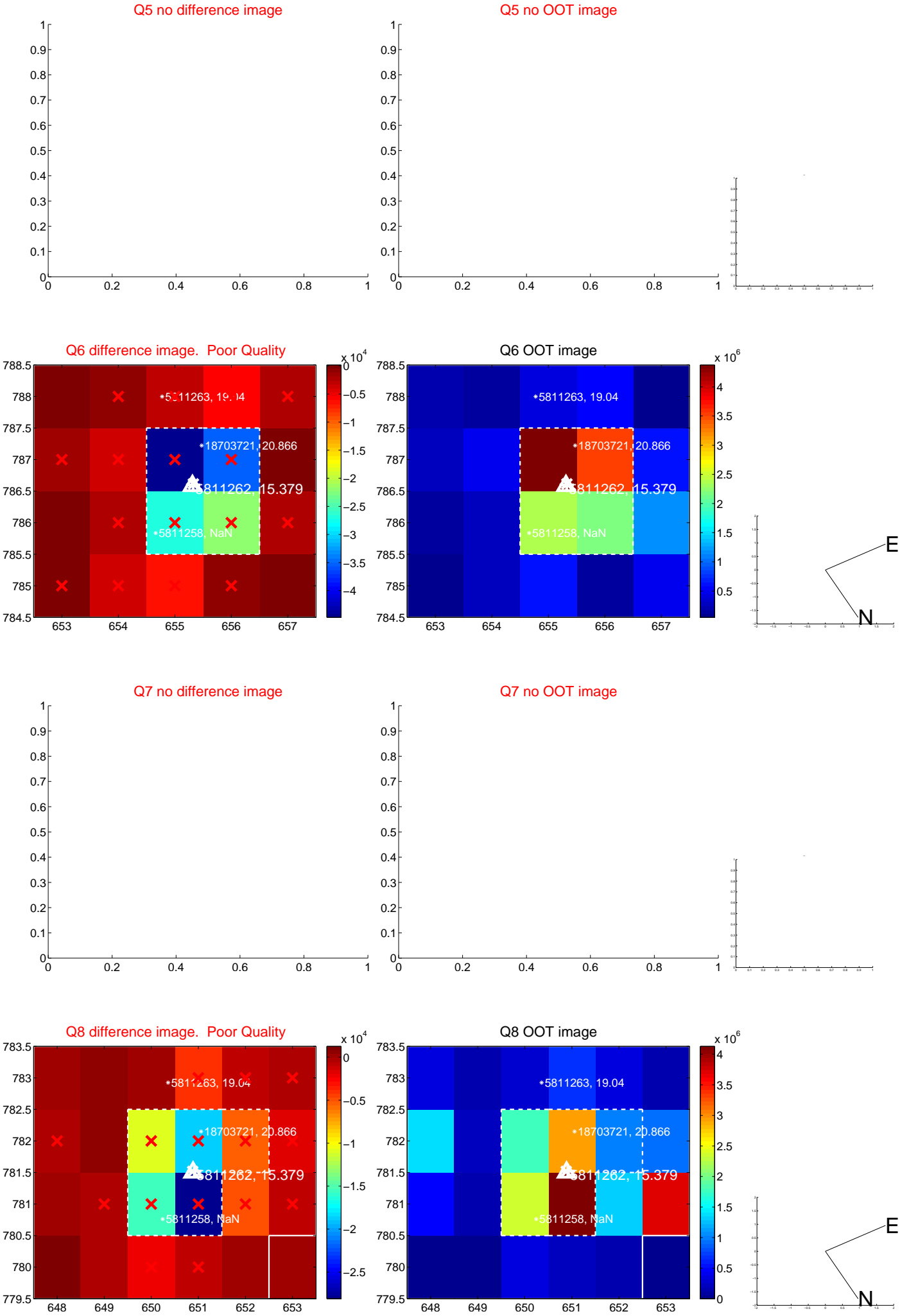
Q4 no difference image



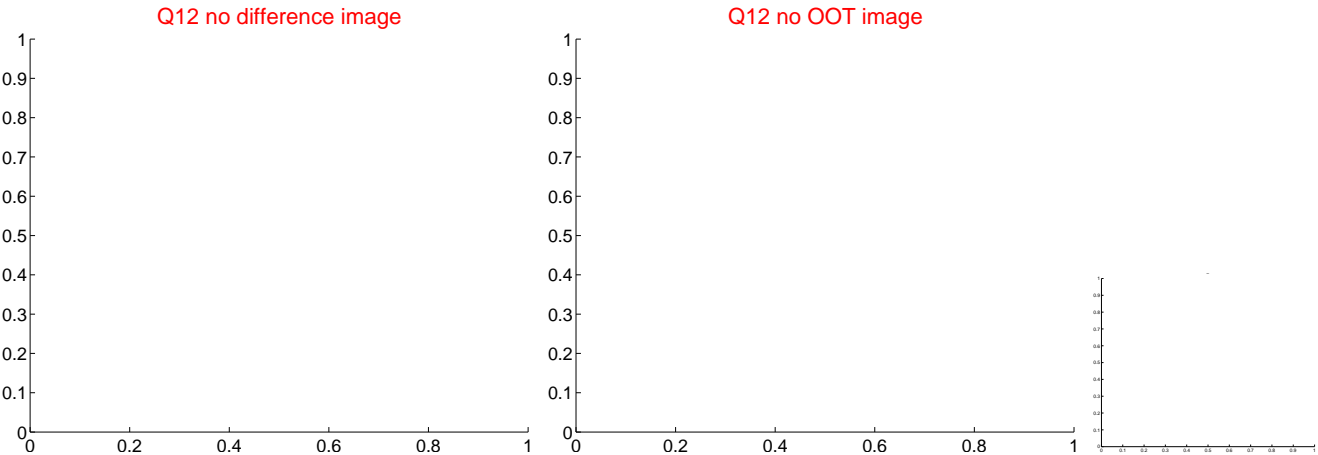
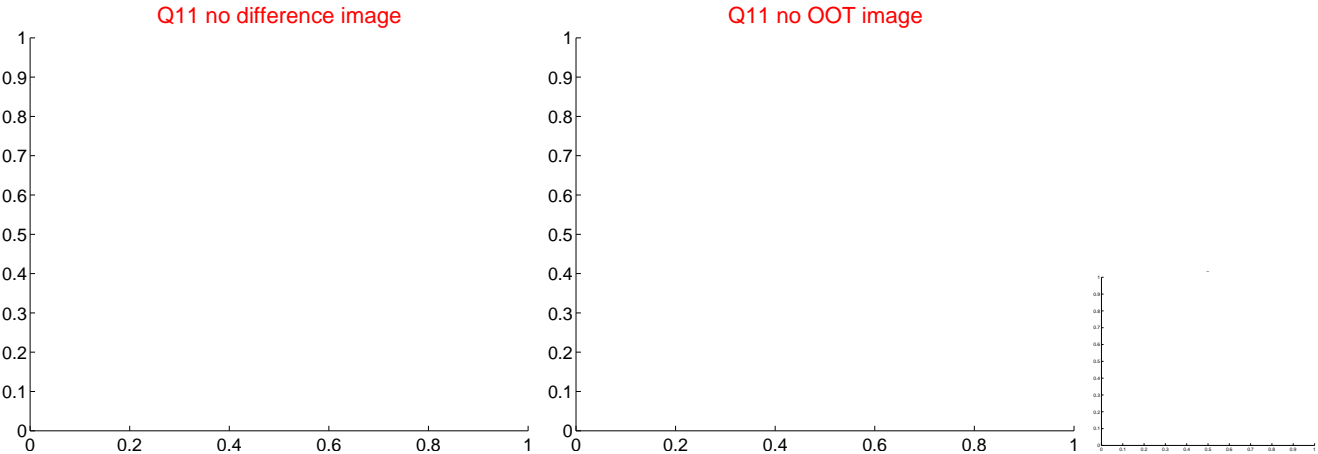
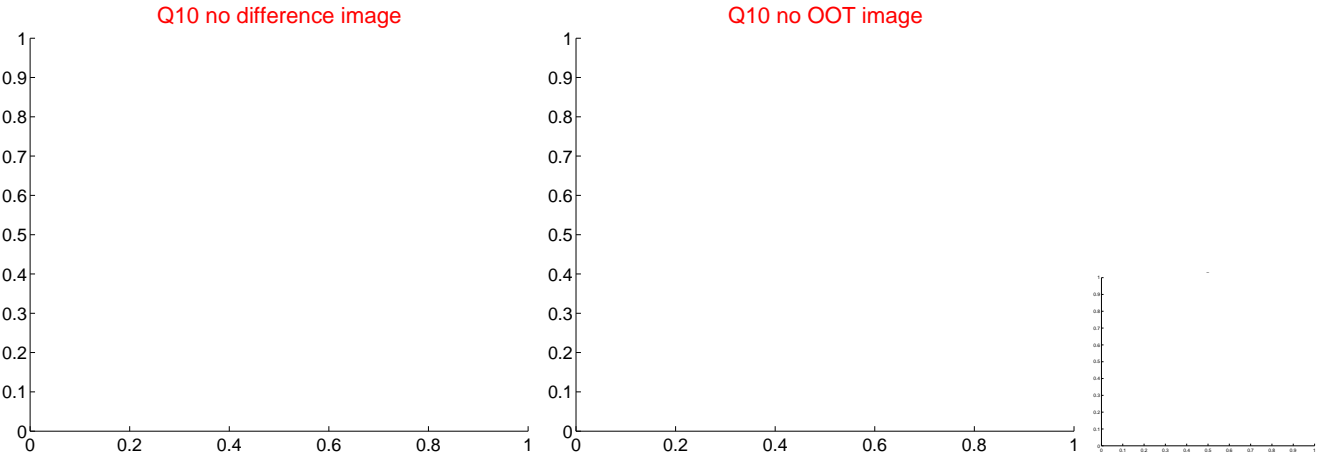
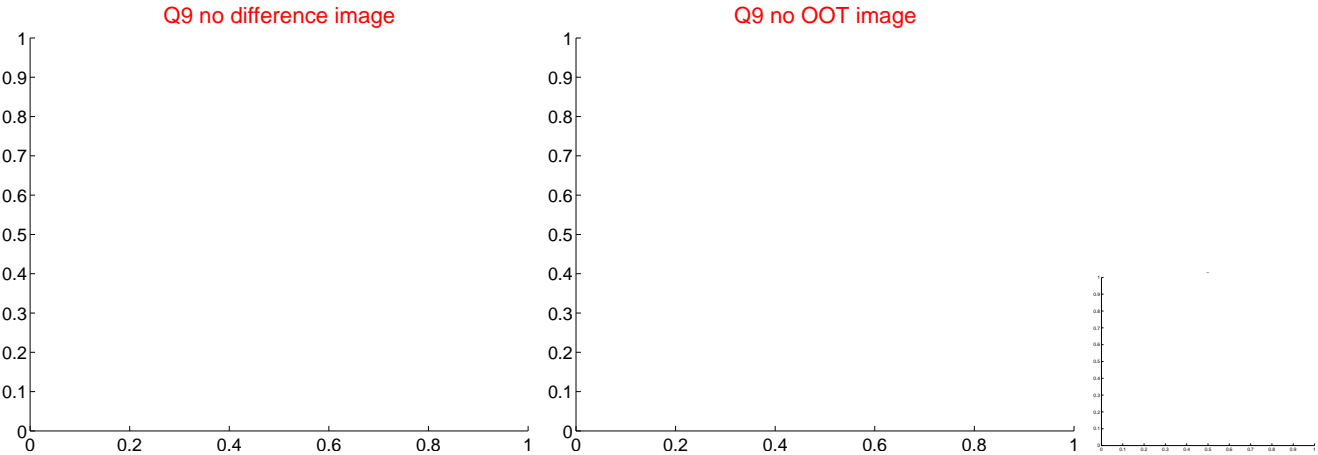
Q4 no OOT image



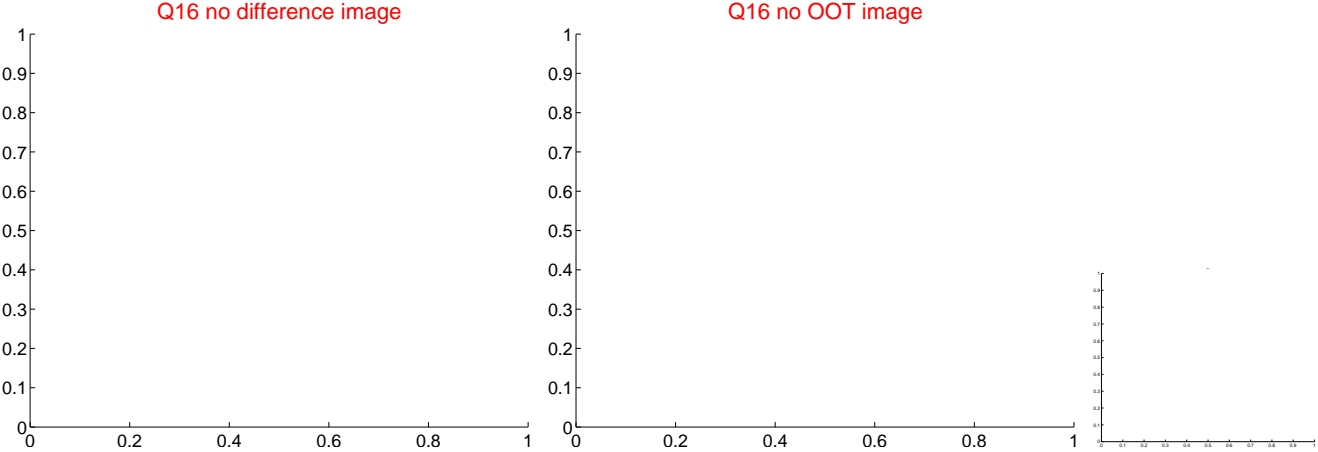
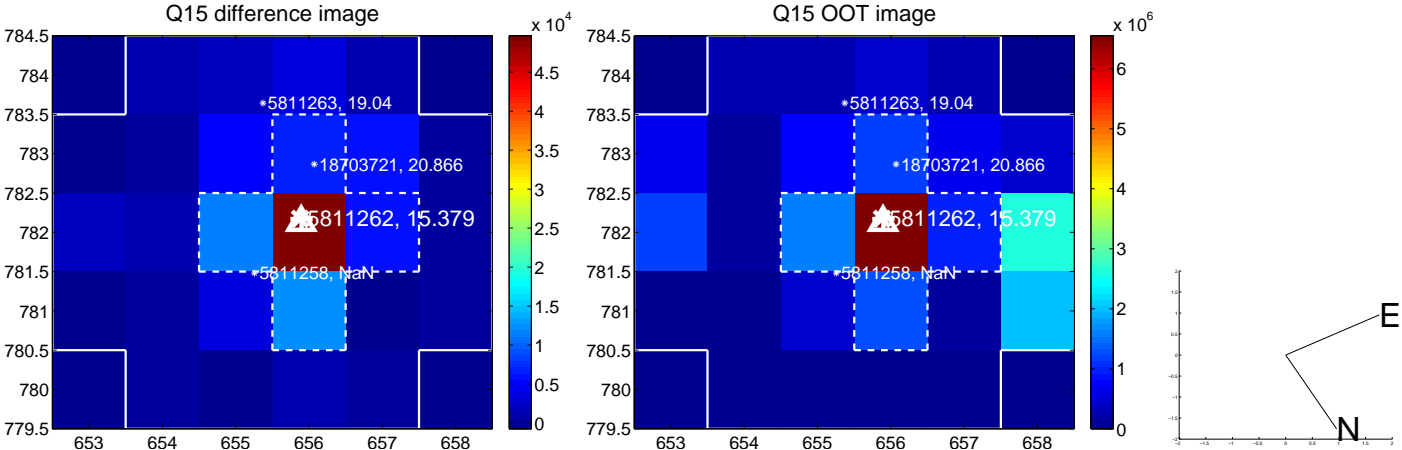
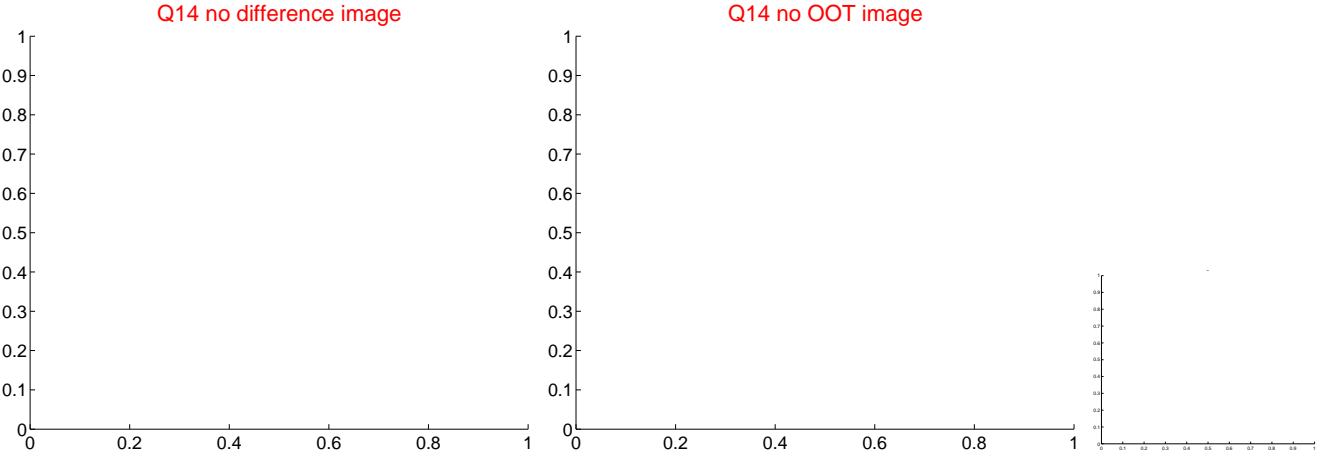
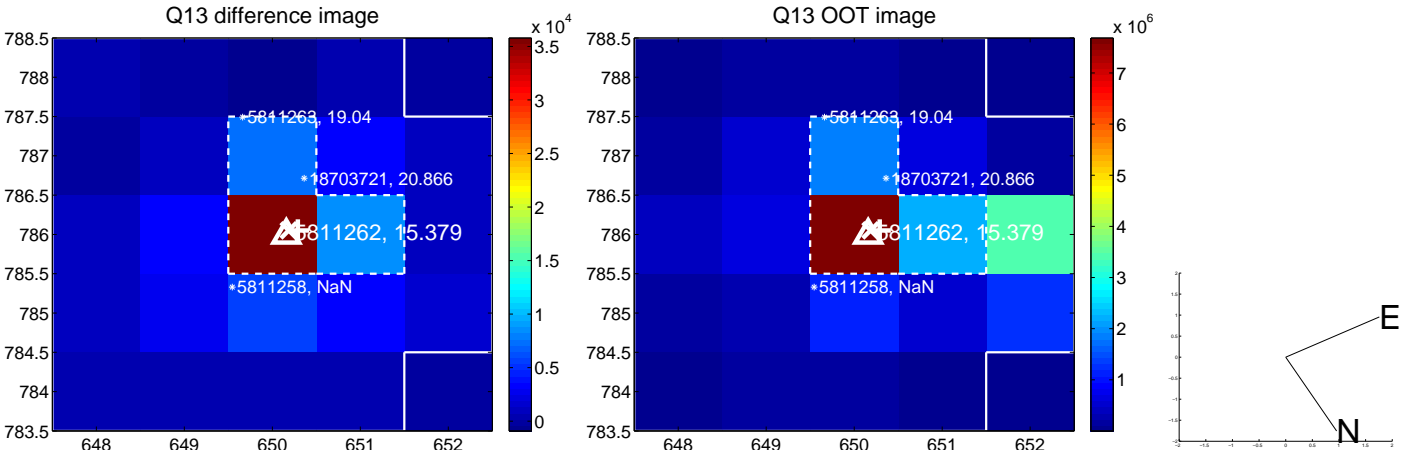
white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

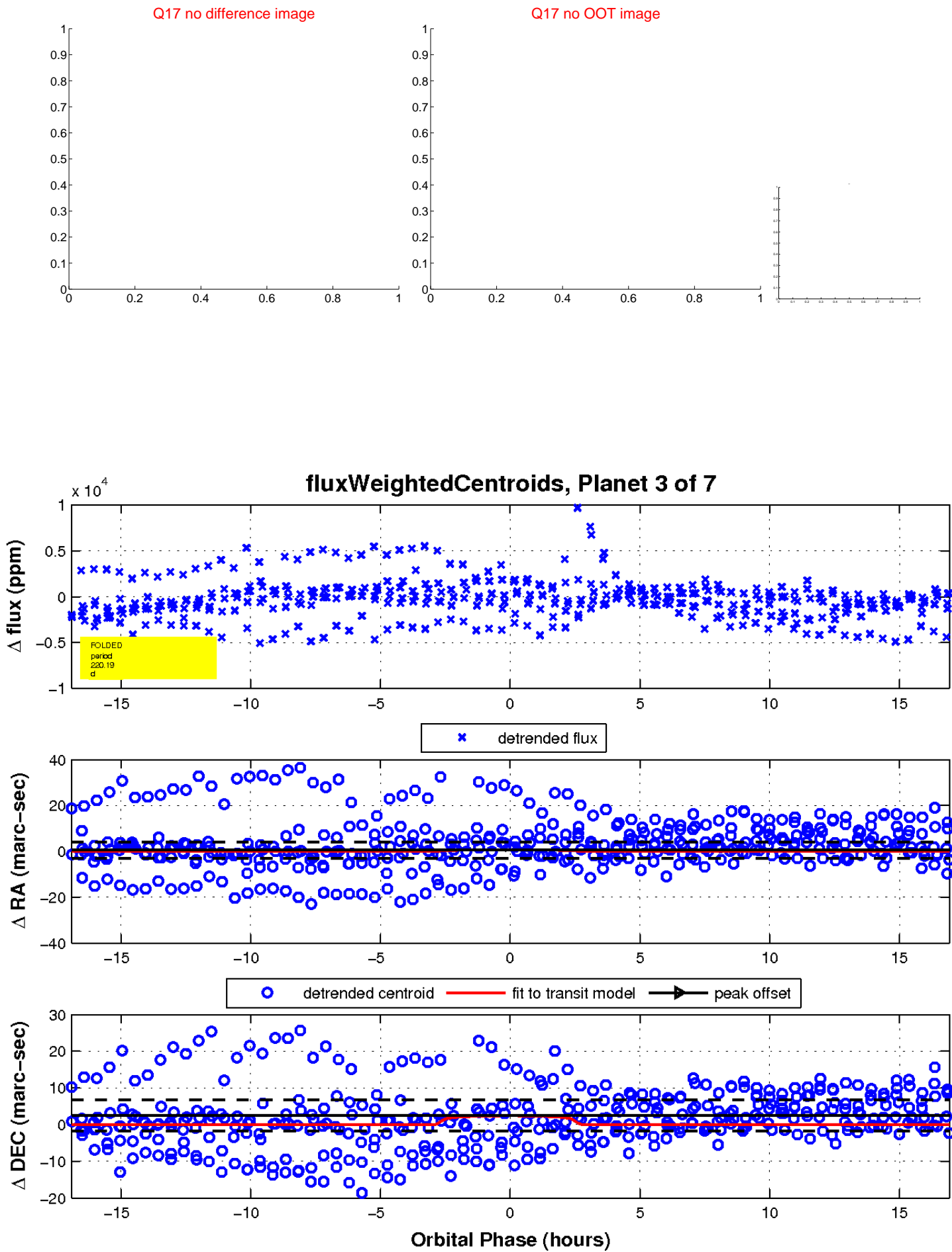


white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



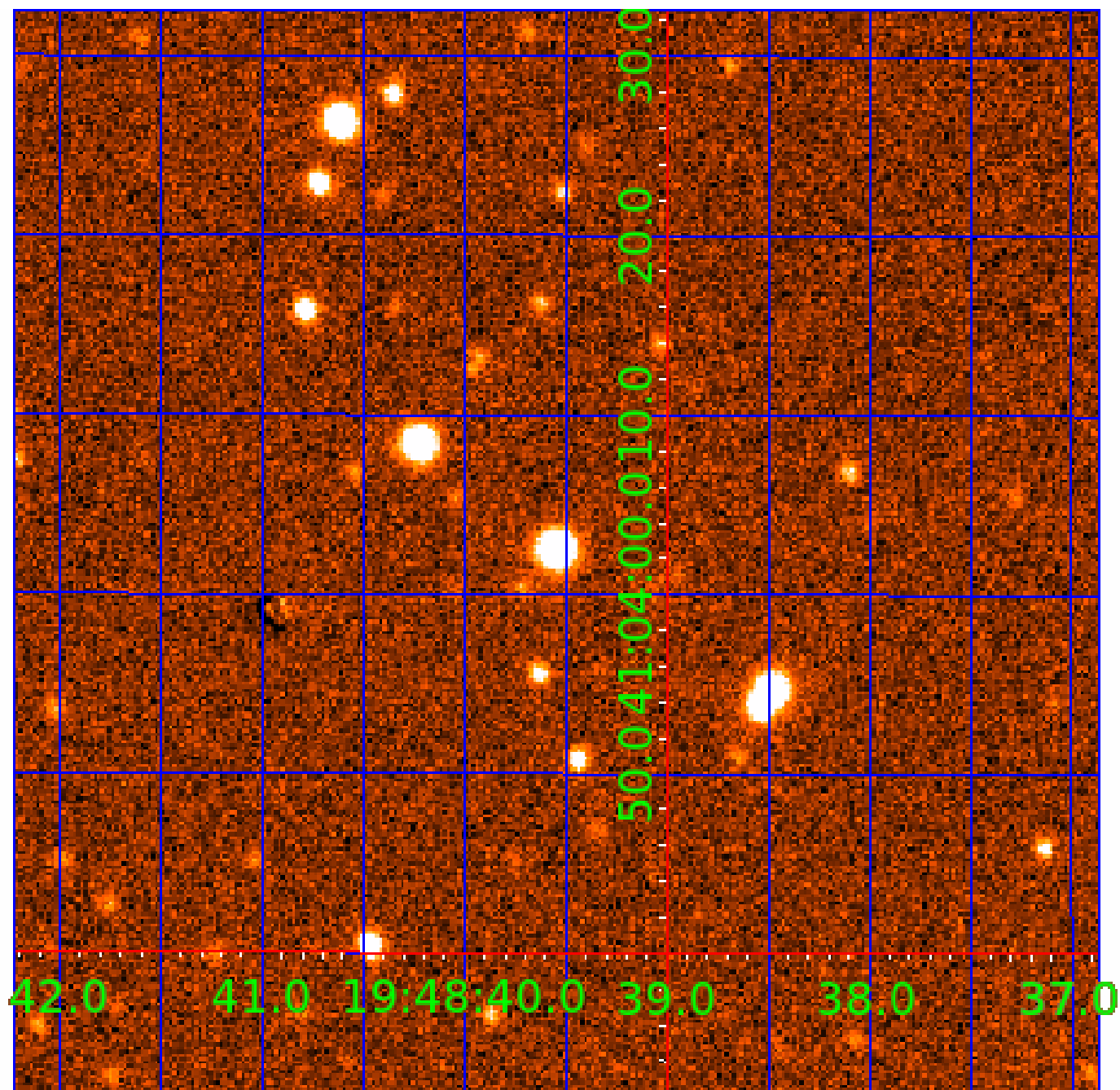


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination



# KIC 005811262

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005811262-01	OBS	No	2.085942	132.005251	386.7	9.623	9.3	12.2	0.73	5592	1.89	533.94
005811262-02	OBS	No	245.655352	221.389634	3920.8	11.816	9.7	7.6	0.73	5592	5.67	0.93
005811262-03	OBS	No	220.192778	343.804573	2701.5	5.650	11.3	7.9	0.73	5592	4.00	1.07
005811262-05	OBS	No	147.648087	260.055114	1301.1	6.000	9.9	-1.0	0.73	5592	2.62	1.82
005811262-07	OBS	No	303.883293	305.110974	2056.1	6.363	9.1	5.8	0.73	5592	3.83	0.70

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005811262-01	OBS	FP	0.00	1	0	0	0	LPP_DV
005811262-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
005811262-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005811262-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST
005811262-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

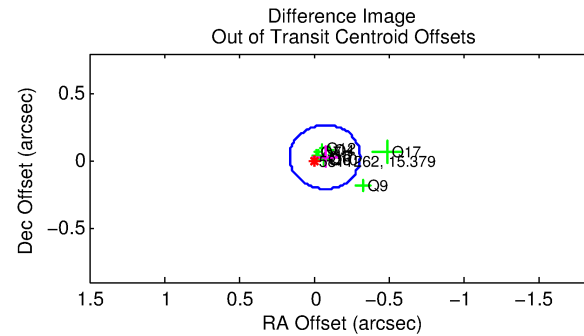
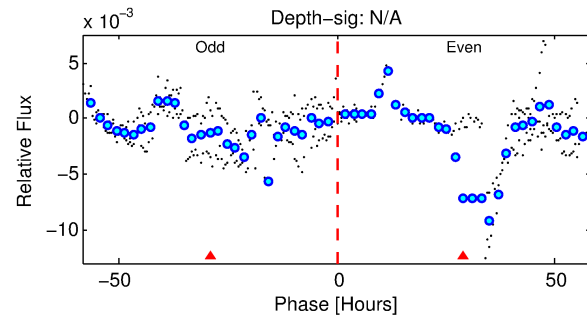
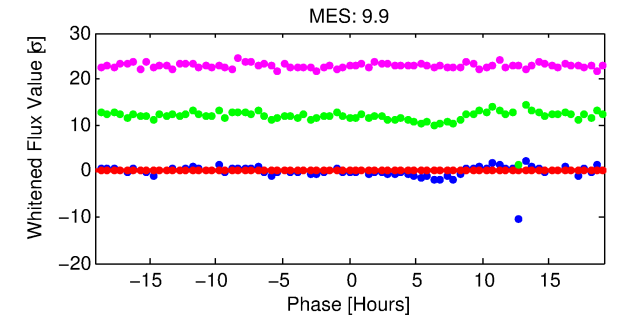
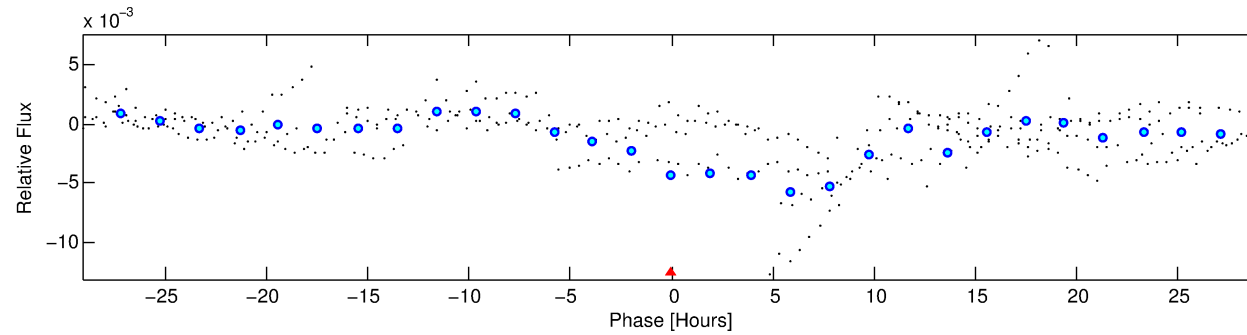
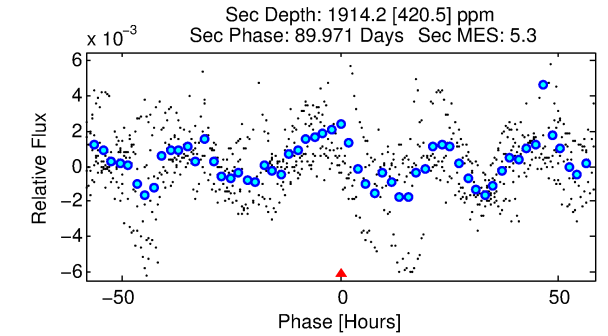
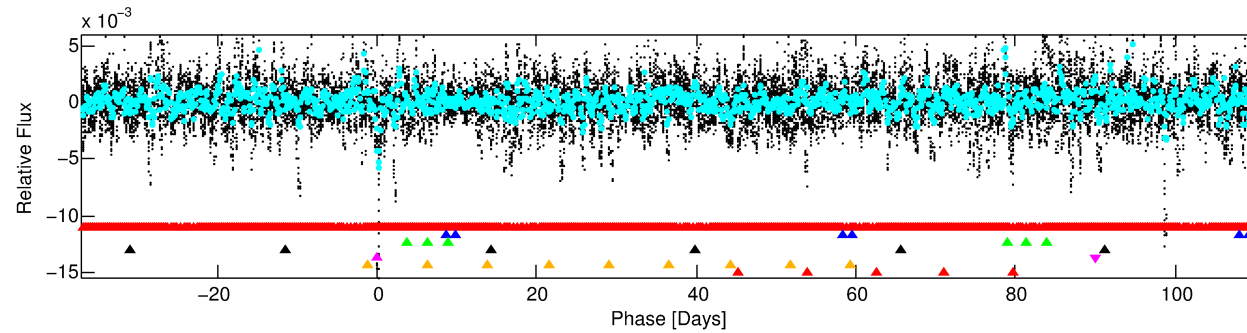
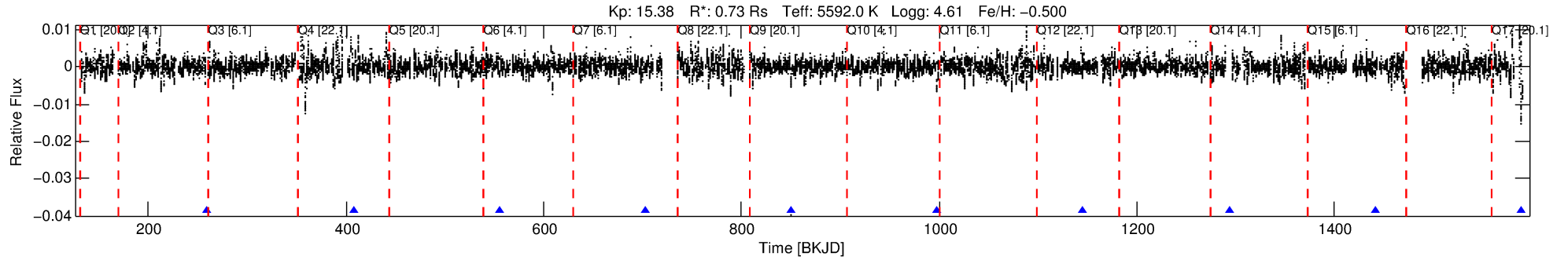
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005811262-05

No Significant Match Found

# DV One-Page Summary

KIC: 5811262 Candidate: 5 of 7 Period: 147.648 d



## TPS TCE Results:

Period = 147.64809 d  
Epoch = 260.0551 BKJD

DV fit results are unavailable

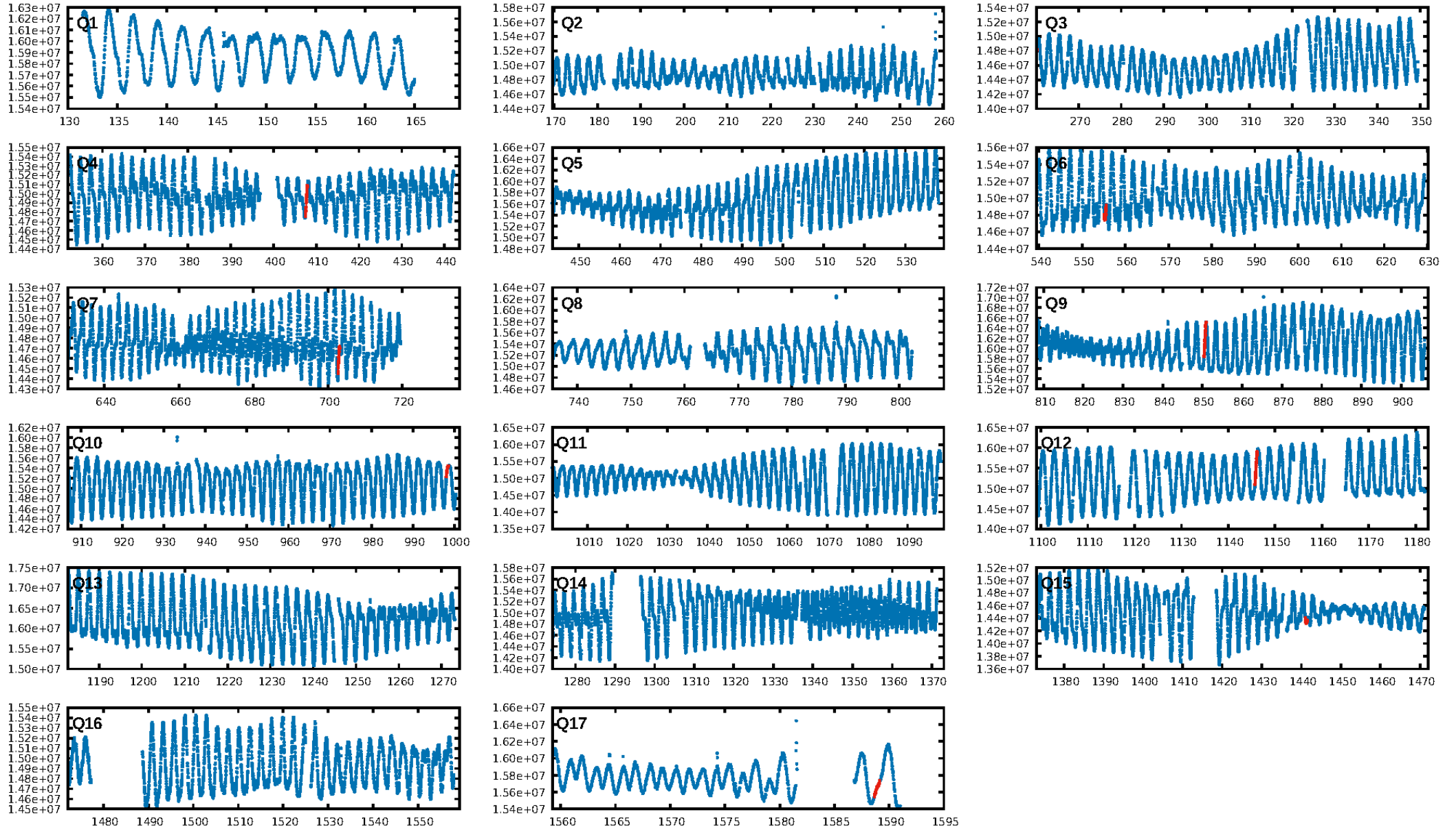
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [308.07σ]  
LongPeriod-sig: 100.0% [25.66σ]  
ModelChiSquare2-sig: N/A  
ModelChiSquareGof-sig: N/A  
Bootstrap-pfa: 2.67e-10  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 0.1245  
Centroid-sig: 40.7%  
Centroid-so: 1.543 arcsec [5.61σ]  
OotOffset-rm: 0.082 arcsec [1.03σ]  
KicOffset-rm: 0.091 arcsec [1.26σ]  
OotOffset-st: 2/2/2/2 [8]  
KicOffset-st: 2/2/2/2 [8]  
DiffImageQuality-fgm: 0.88 [7/8]  
DiffImageOverlap-fno: 0.12 [1/8]

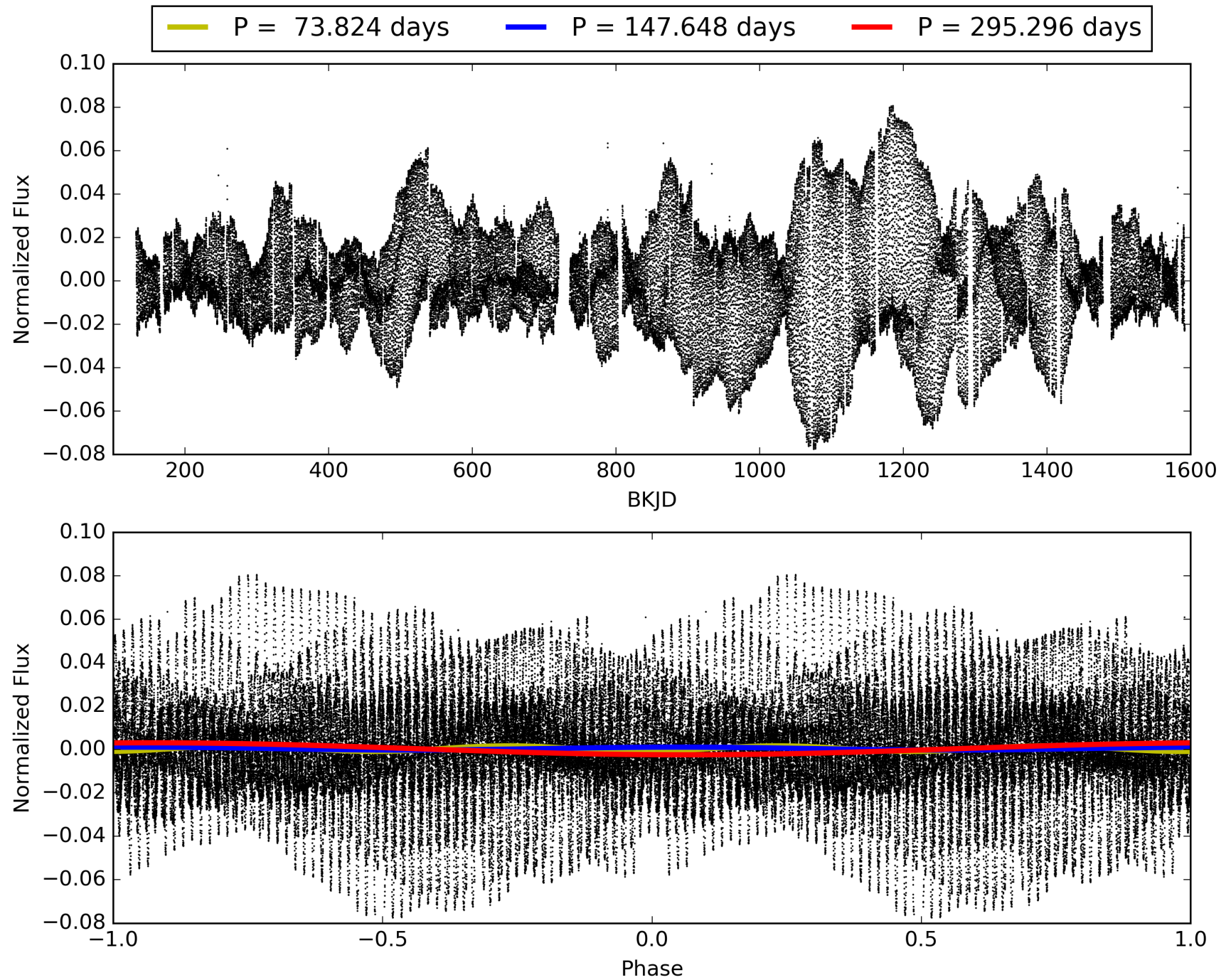
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:54:58 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 005811262-05, PDC Light Curves



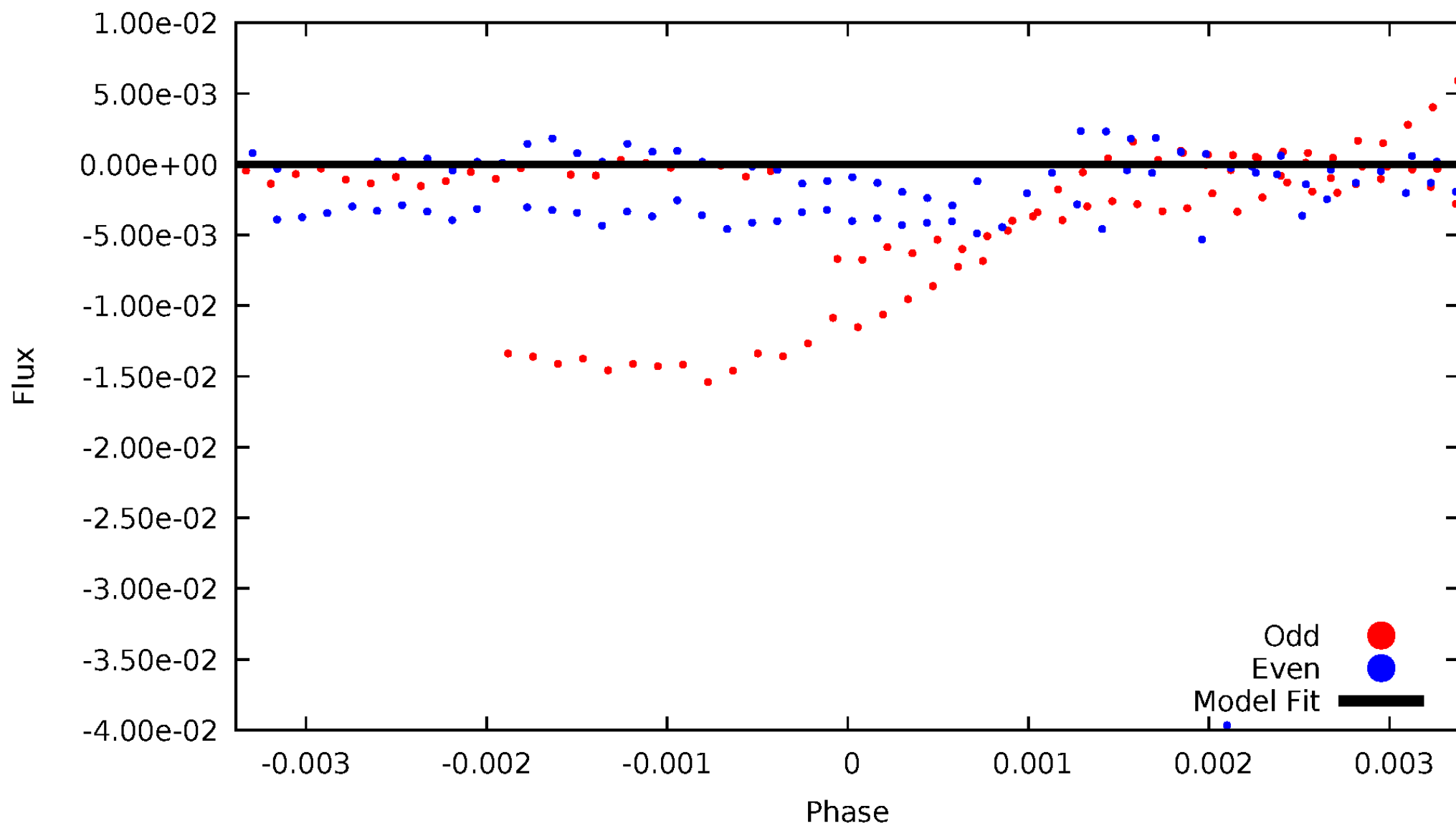
TCE 005811262-05





# DV Odd/Even

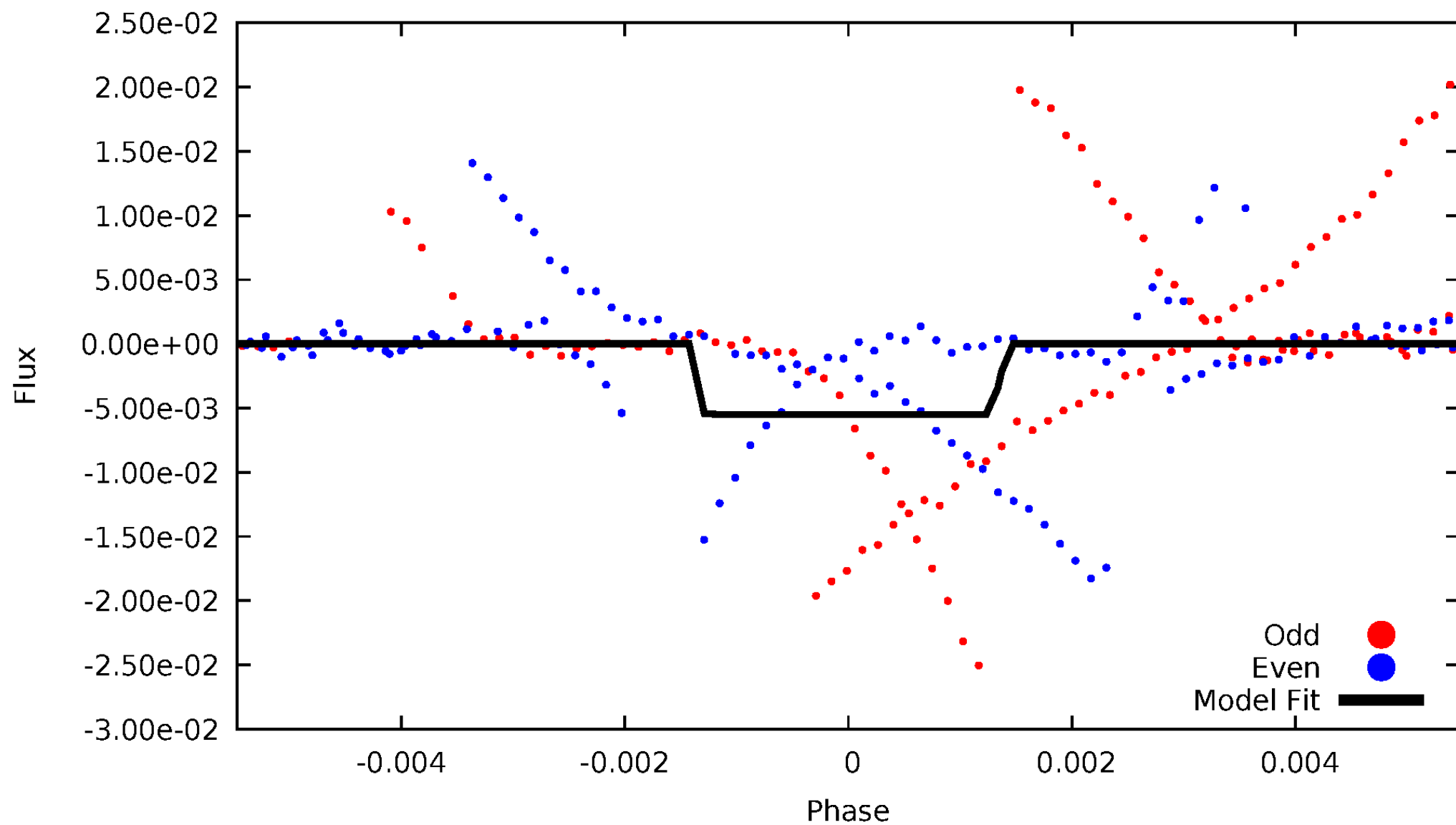
TCE 005811262-05





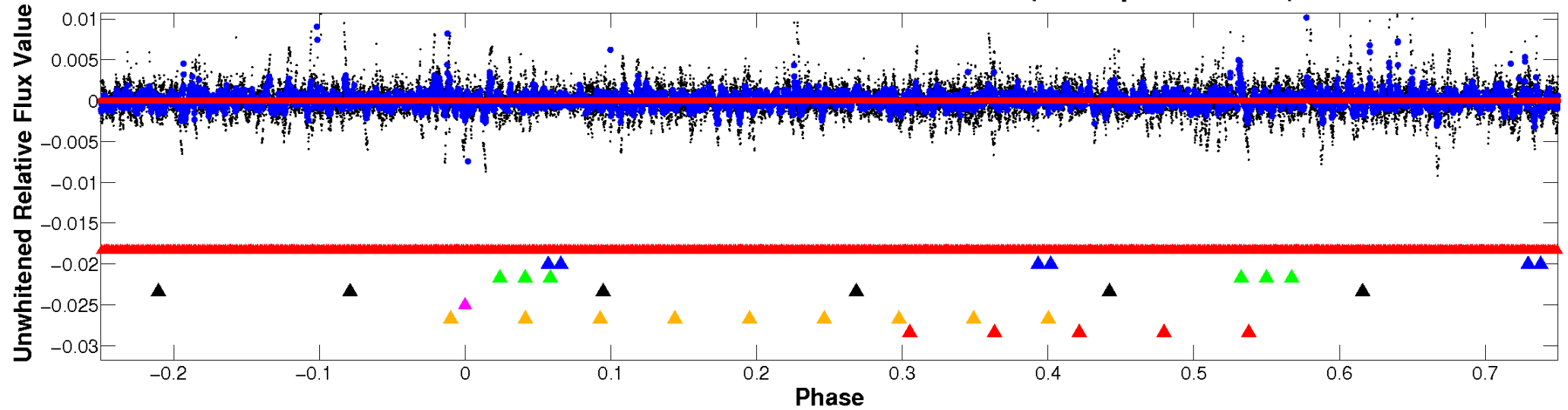
# ALT Odd/Even

TCE 005811262-05

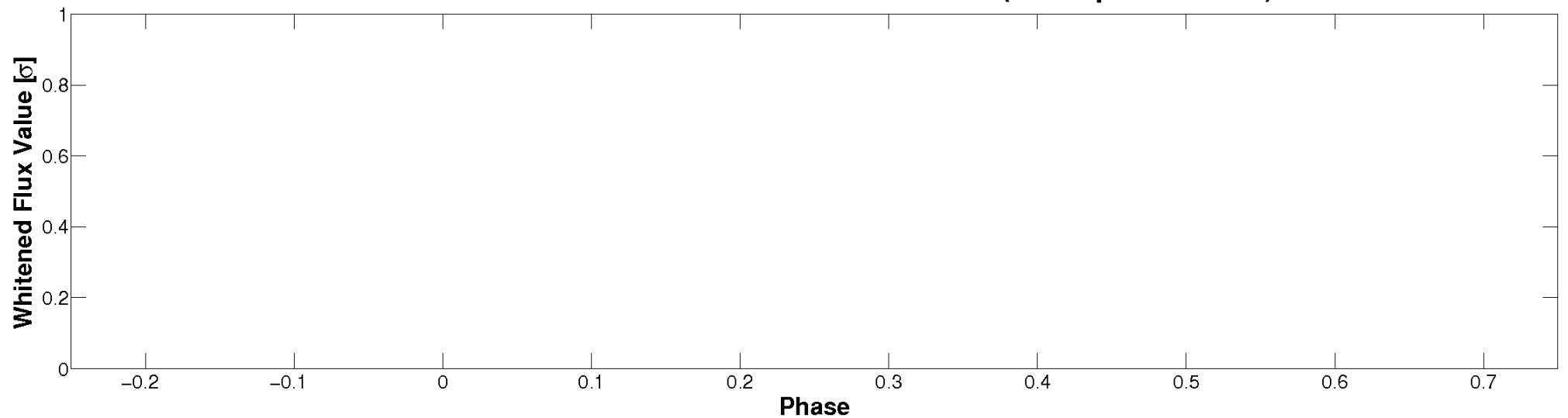


# Non-Whitened Vs. Whitened Light Curve

Planet 5 : Phased Unwhitened Flux Time Series (TPS Epoch/Period)

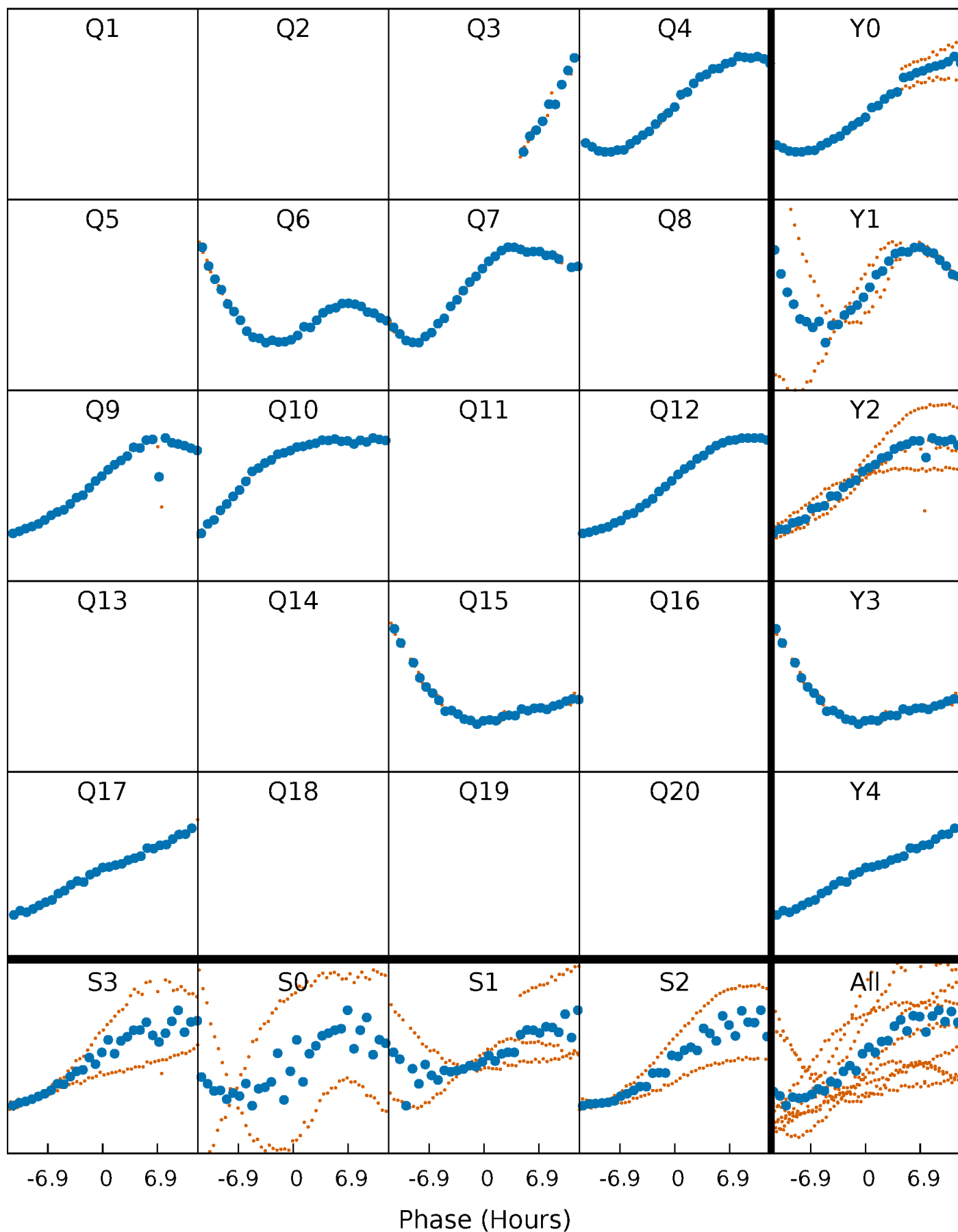


Planet 5 : Phased Whitened Flux Time Series (TPS Epoch/Period)



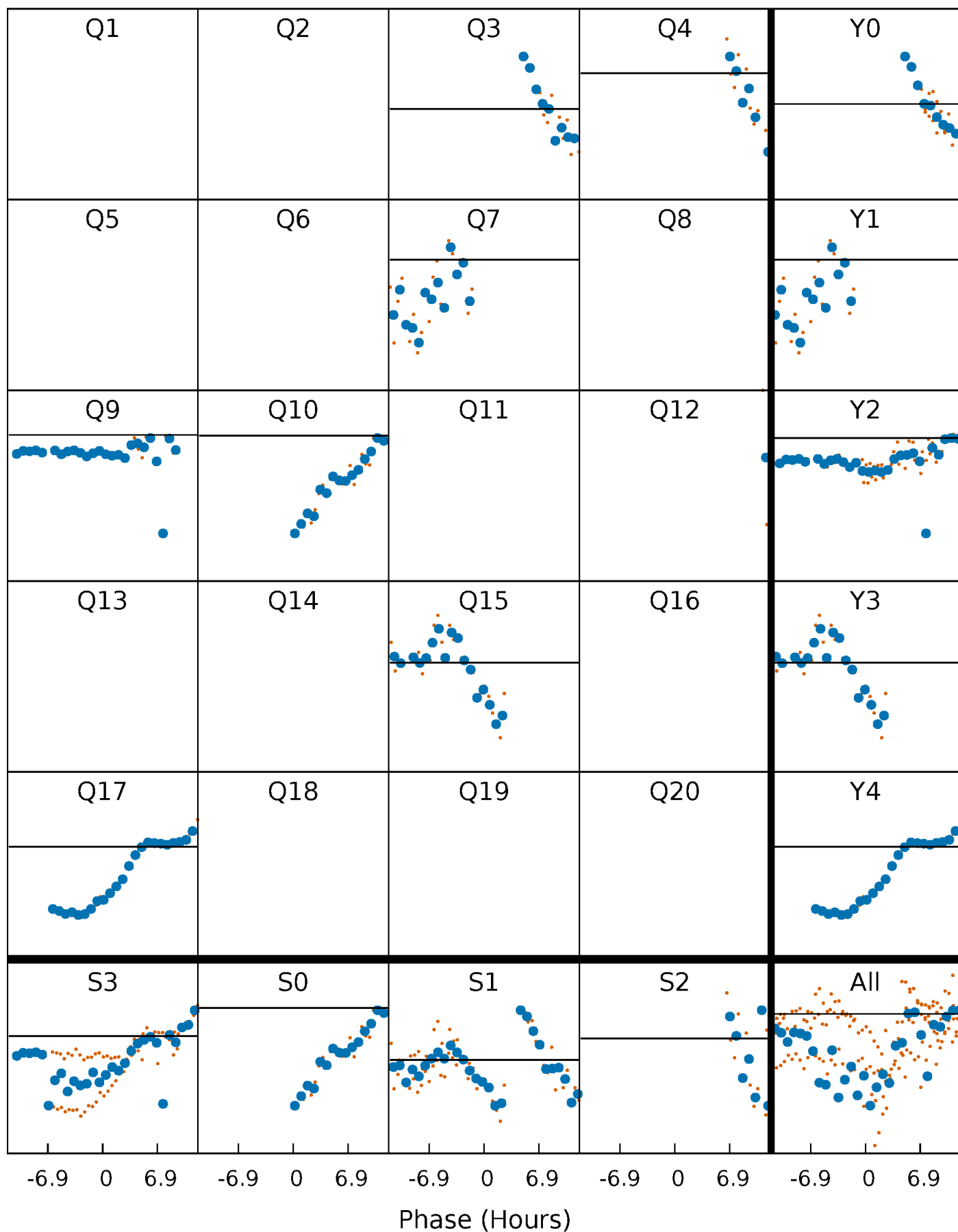
# PDC Quarter-Phased Transit Curves

TCE 005811262-05 P=147.648087 Days  $T_0=260.055114$  (BKJD)



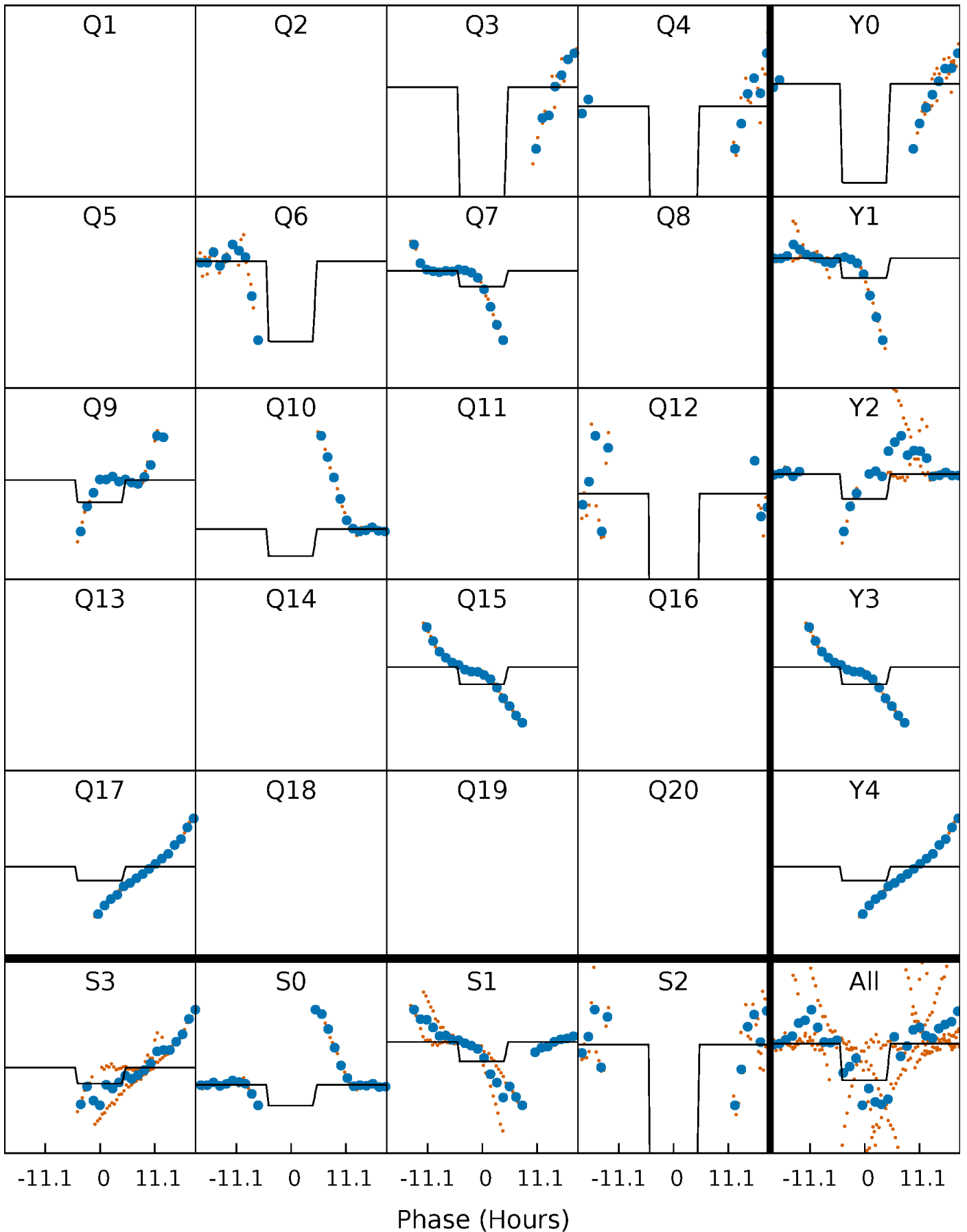
# DV Quarter-Phased Transit Curves

TCE 005811262-05     $P=147.648087$  Days     $T_0=260.055114$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

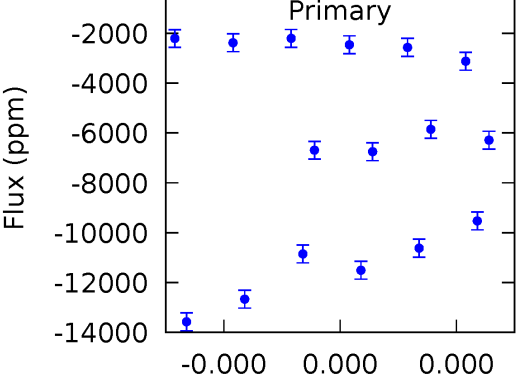
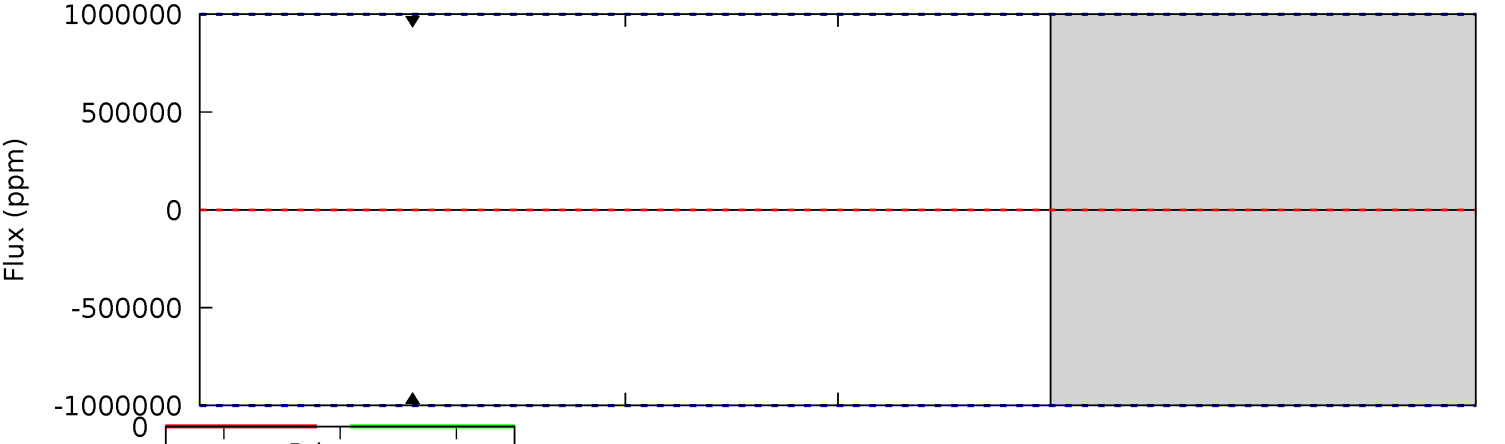
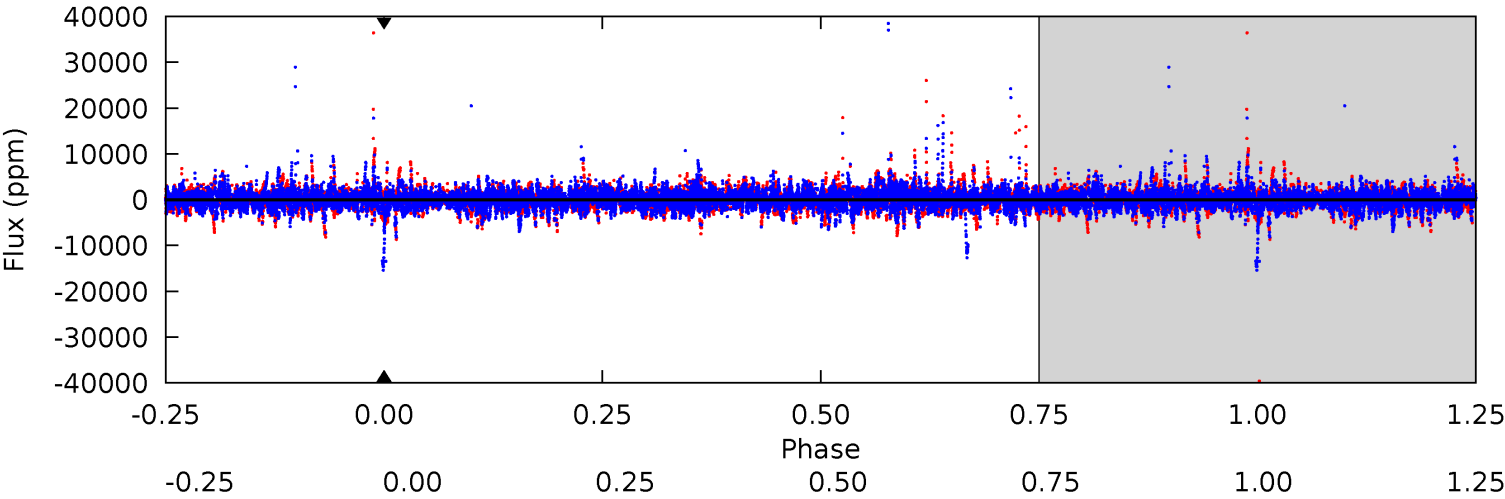
TCE 005811262-05 P=147.648087 Days  $T_0=259.820059$  (BKJD)



# DV Model-Shift Uniqueness Test

005811262-05, P = 147.648087 Days, E = 112.407027 Days

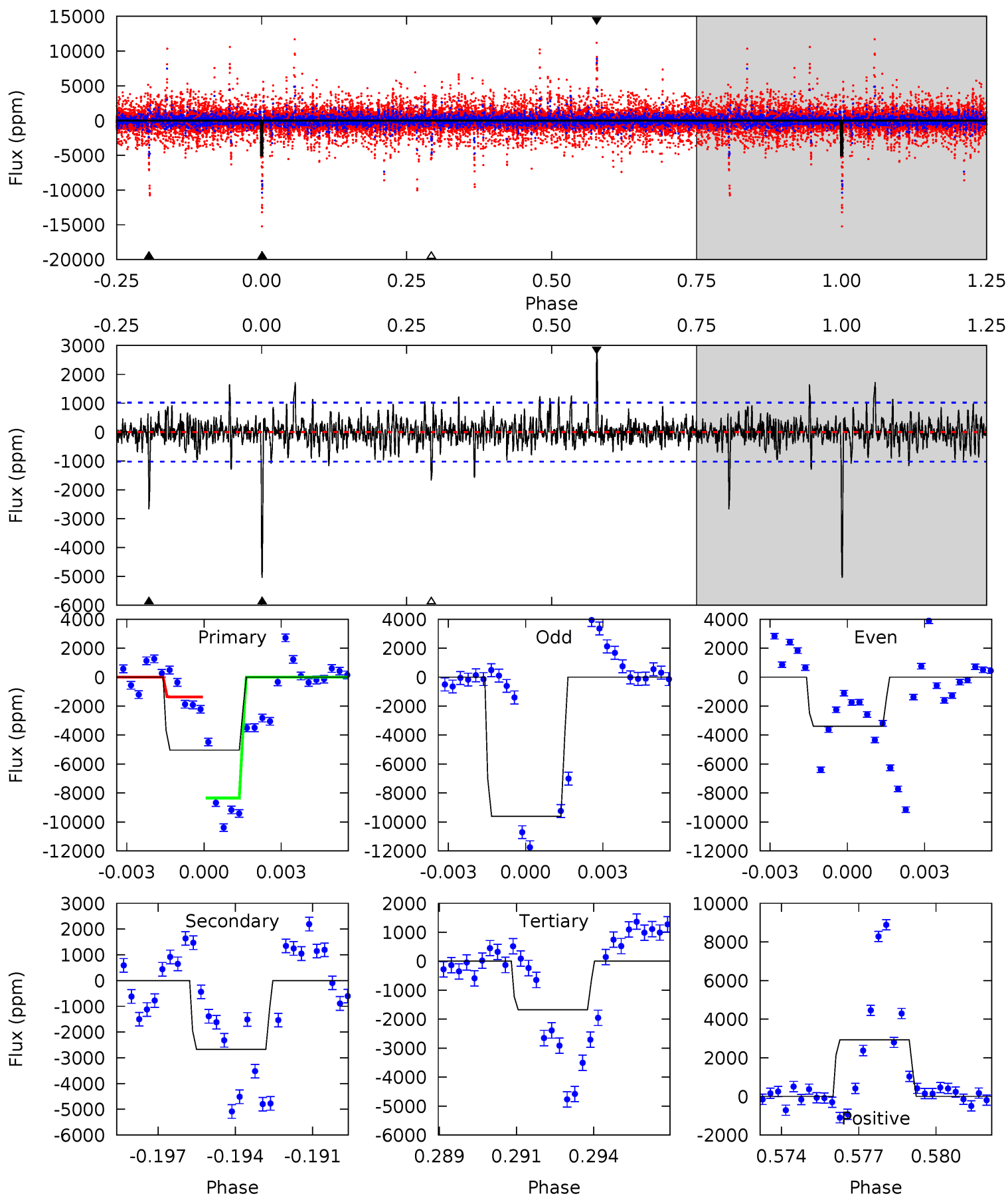
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
0	0	0	0	1.00	1.00	1.00	0	0	0	0	0	0	0	0



# Alt Model-Shift Uniqueness Test

005811262-05, P = 147.648087 Days, E = 112.171972 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
26.0	13.8	8.62	15.1	5.27	3.00	1.81	17.3	10.9	5.13	-1.34	9.93	1.26	0.37	0





### Stellar Parameters For KIC 005811262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5592^{+167}_{-167}$	$4.612^{+0.040}_{-0.128}$	$-0.500^{+0.300}_{-0.300}$	$0.733^{+0.149}_{-0.053}$	$0.824^{+0.078}_{-0.087}$	$2.948^{+0.509}_{-1.115}$
	+3%/-3%	+1%/-3%	+60%/-60%	+20%/-7%	+9%/-11%	+17%/-38%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005811262-05 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{\text{max}}$ (K)	$T_{\text{obs}}$ (K)	$A_{\text{obs}}$
DV	$0 \pm 1000000$	$6.37^{+6.88}_{-4.45}$	$420^{+21}_{-19}$	$-4071^{+23637}_{-13803}$	$-4484.371^{+688242.624}_{-582893.801}$
Alt.	$-2671 \pm 194$	$8.66^{+6.98}_{-5.47}$	$421^{+23}_{-16}$	$4203^{+2268}_{-769}$	$5119^{+32073}_{-3573}$

$T_{\text{max}}$  = Theoretical Maximum Planetary Temperature

$T_{\text{obs}}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{\text{obs}}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{\text{obs}} \gg T_{\text{max}}$  AND  $A_{\text{obs}} \gg 1.0$

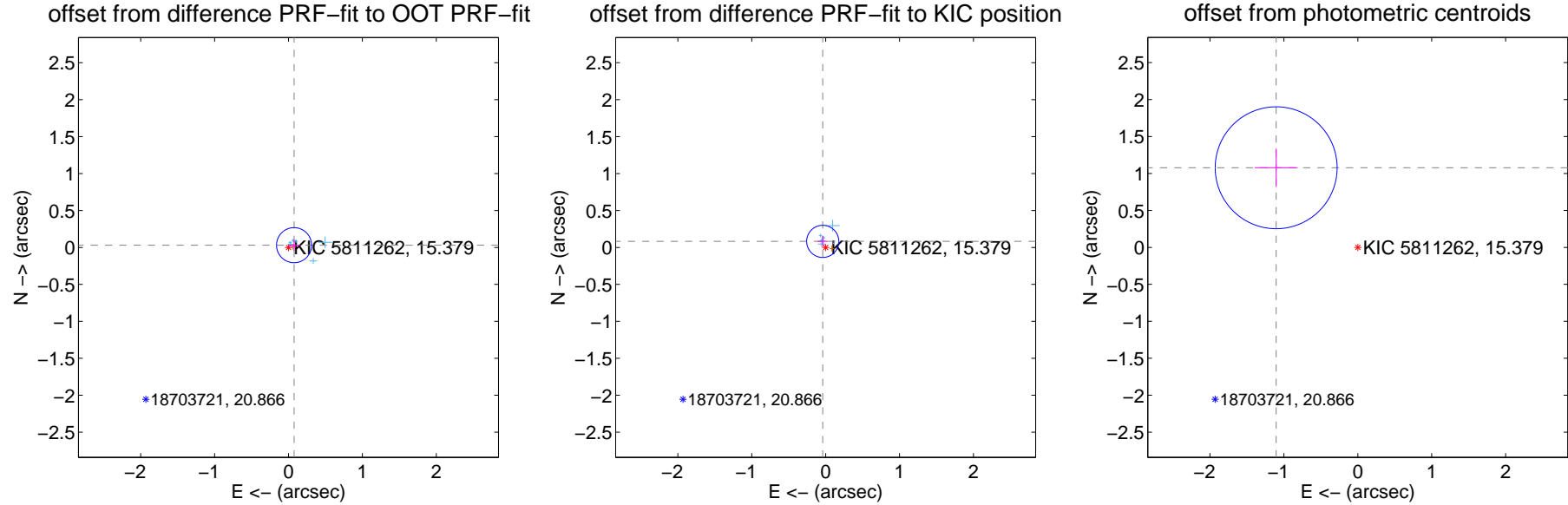
## DV Centroid Data

Supplemental centroid analysis for 005811262-05. Kepler magnitude: 15.38. Transit SNR -1.00

There are 7 quarters with good PRF difference image offsets

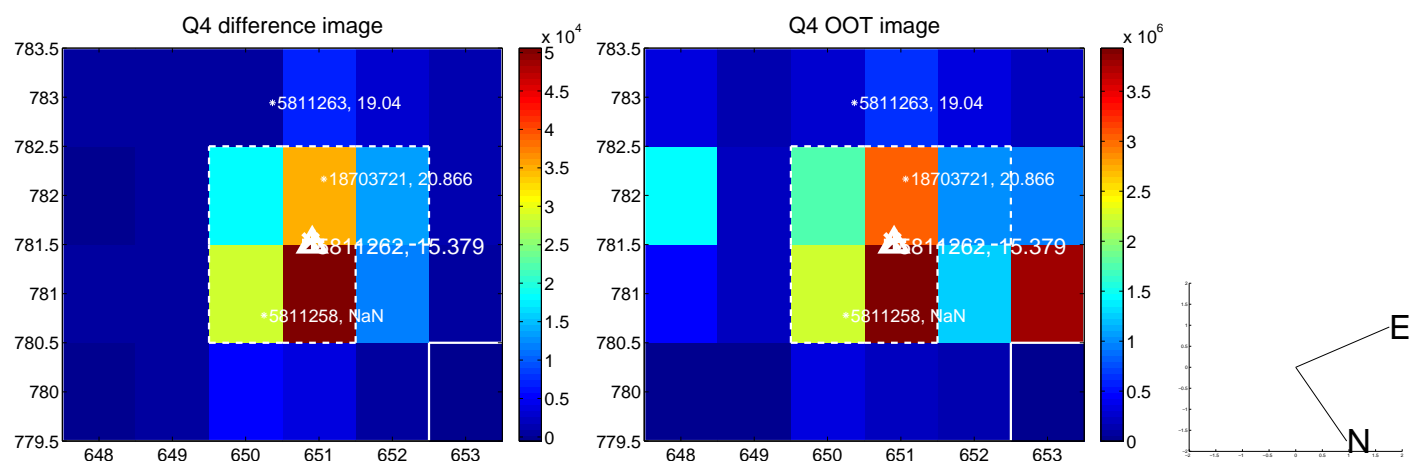
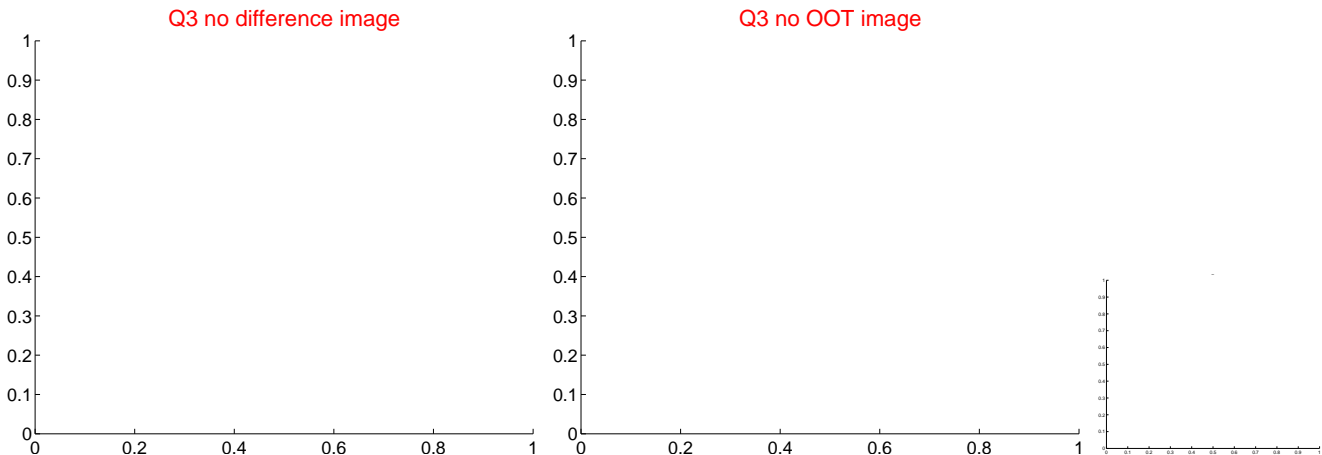
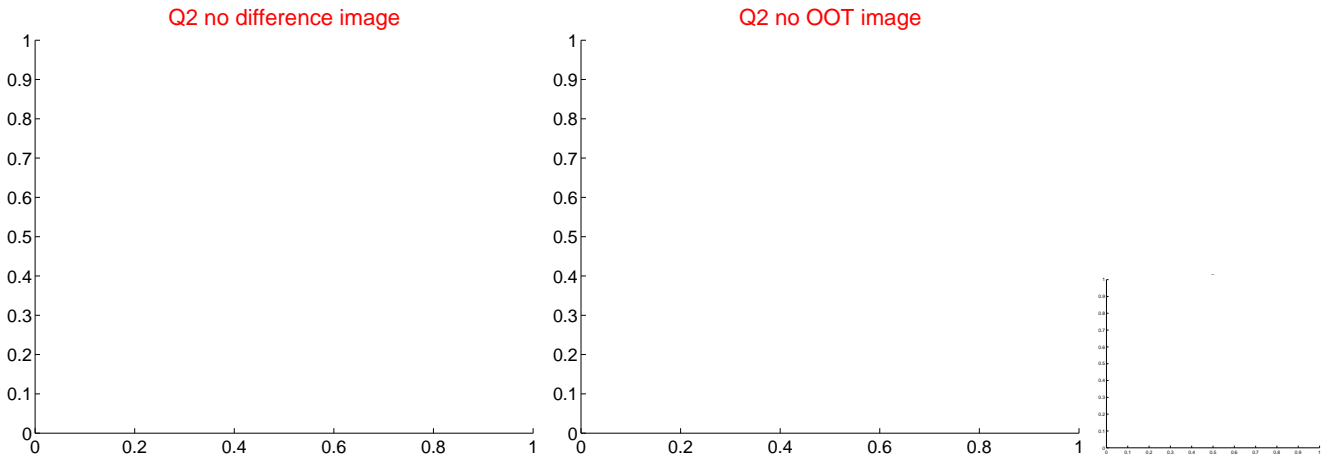
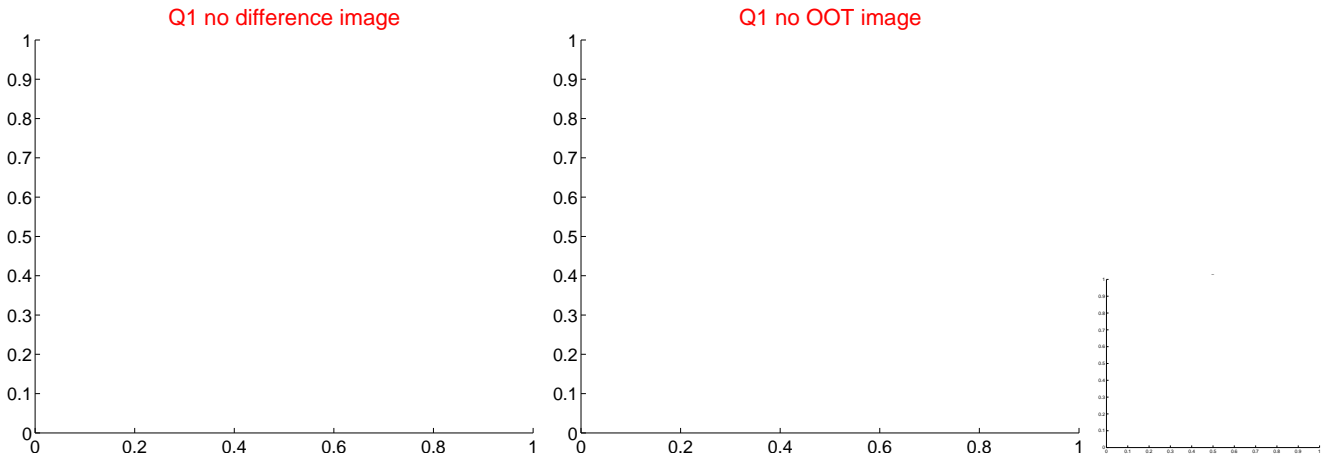
The direct PRF centroid is offset from the target star catalog position by about 0.46 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.082 \pm 0.079$	1.03	$-0.076 \pm 0.081$	$0.031 \pm 0.073$
PRF-fit source offset from KIC position	$0.091 \pm 0.073$	1.26	$0.040 \pm 0.071$	$0.082 \pm 0.073$
photometric centroid source offset	$1.54 \pm 0.27$	5.61	$1.10 \pm 0.29$	$1.08 \pm 0.26$



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.

white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

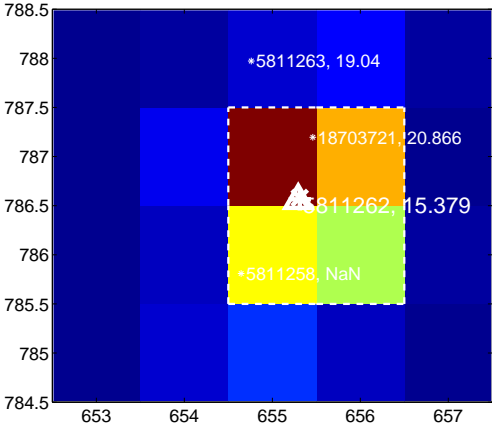
Q5 no difference image



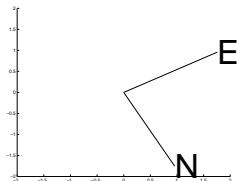
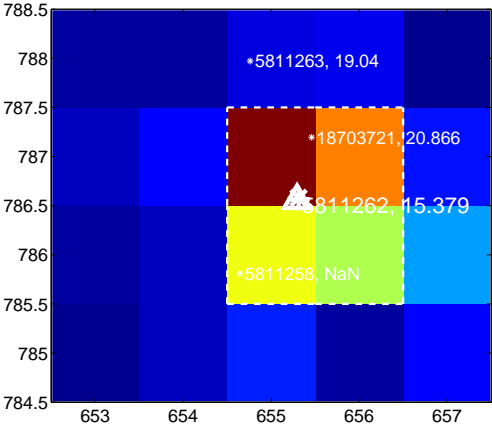
Q5 no OOT image



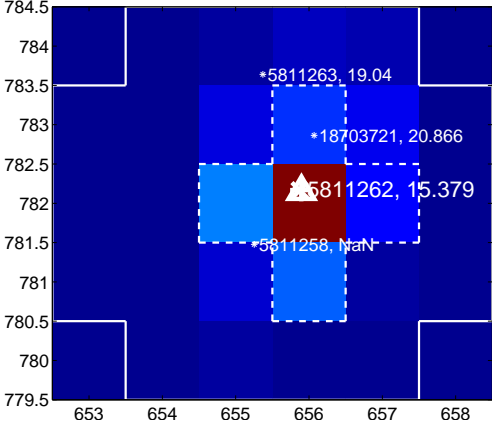
Q6 difference image



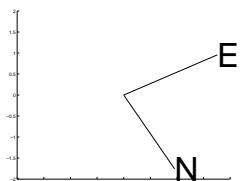
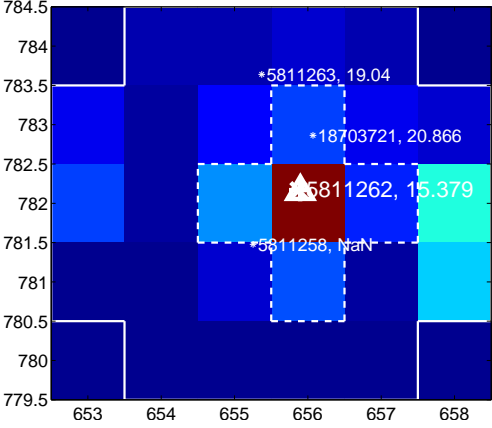
Q6 OOT image



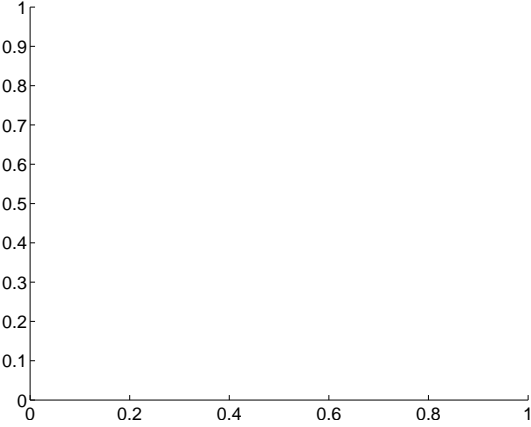
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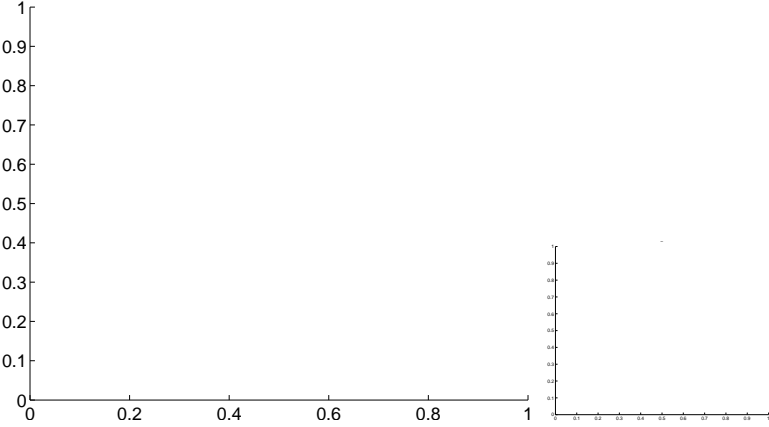
Q7 OOT image



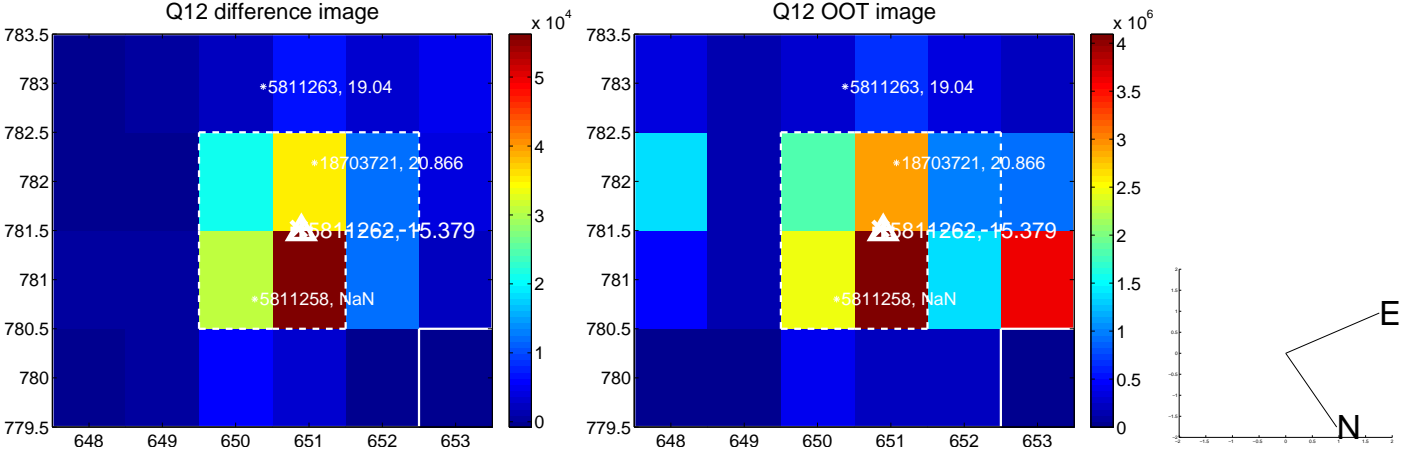
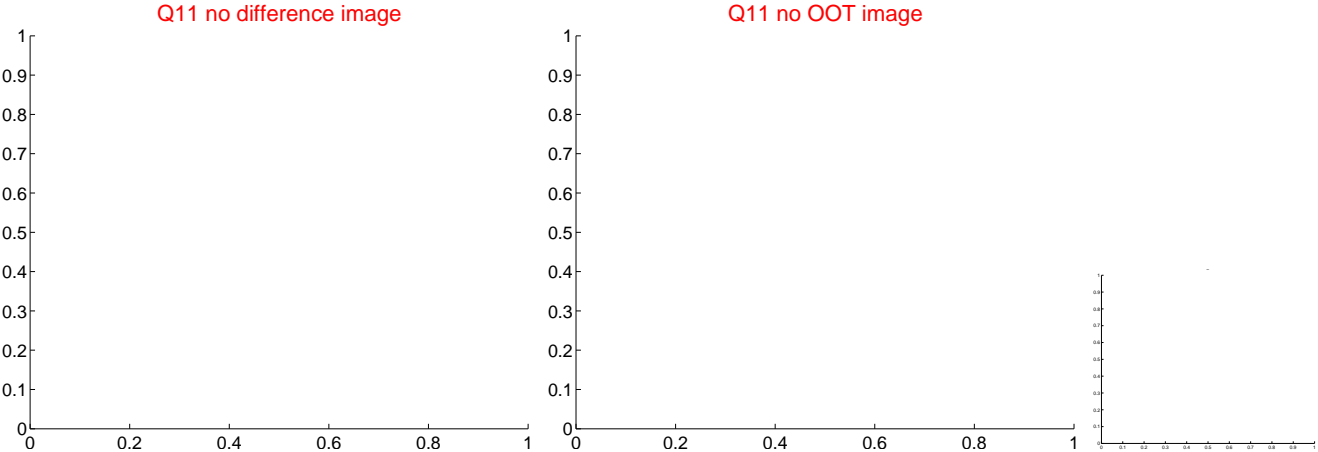
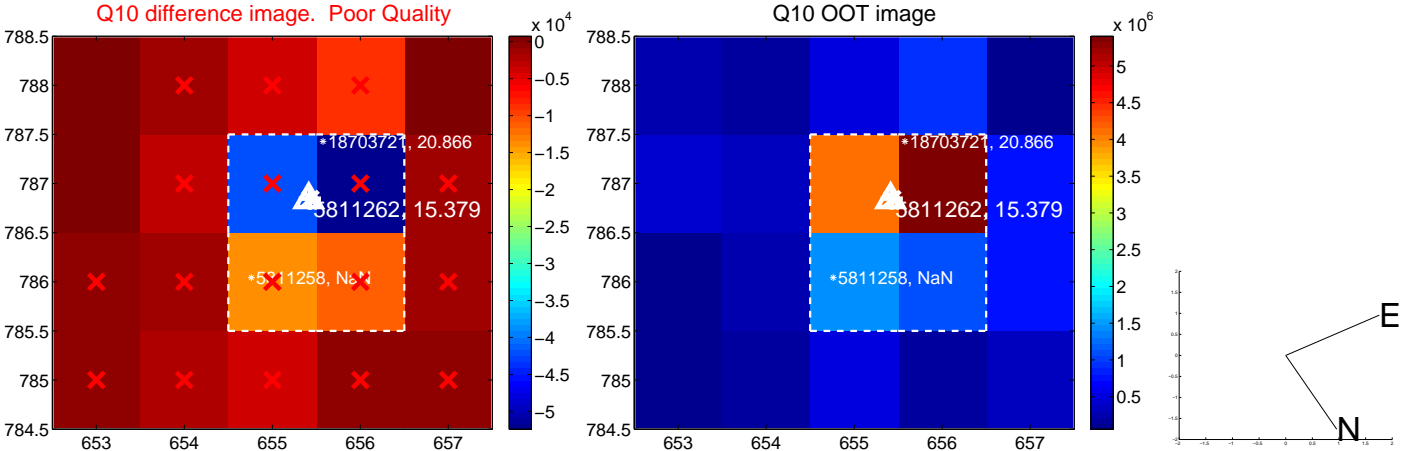
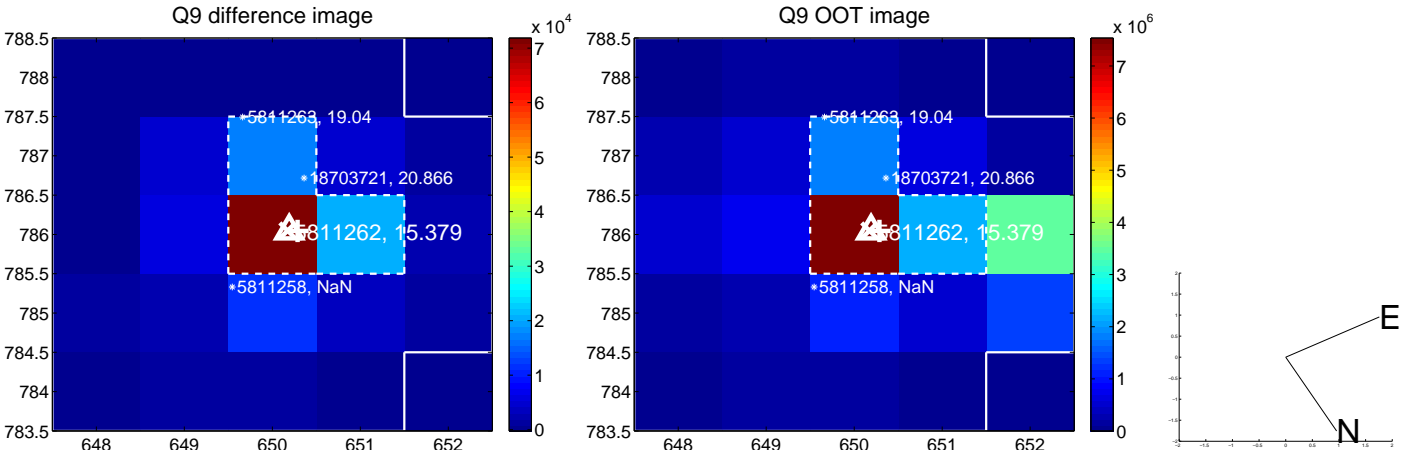
Q8 no difference image



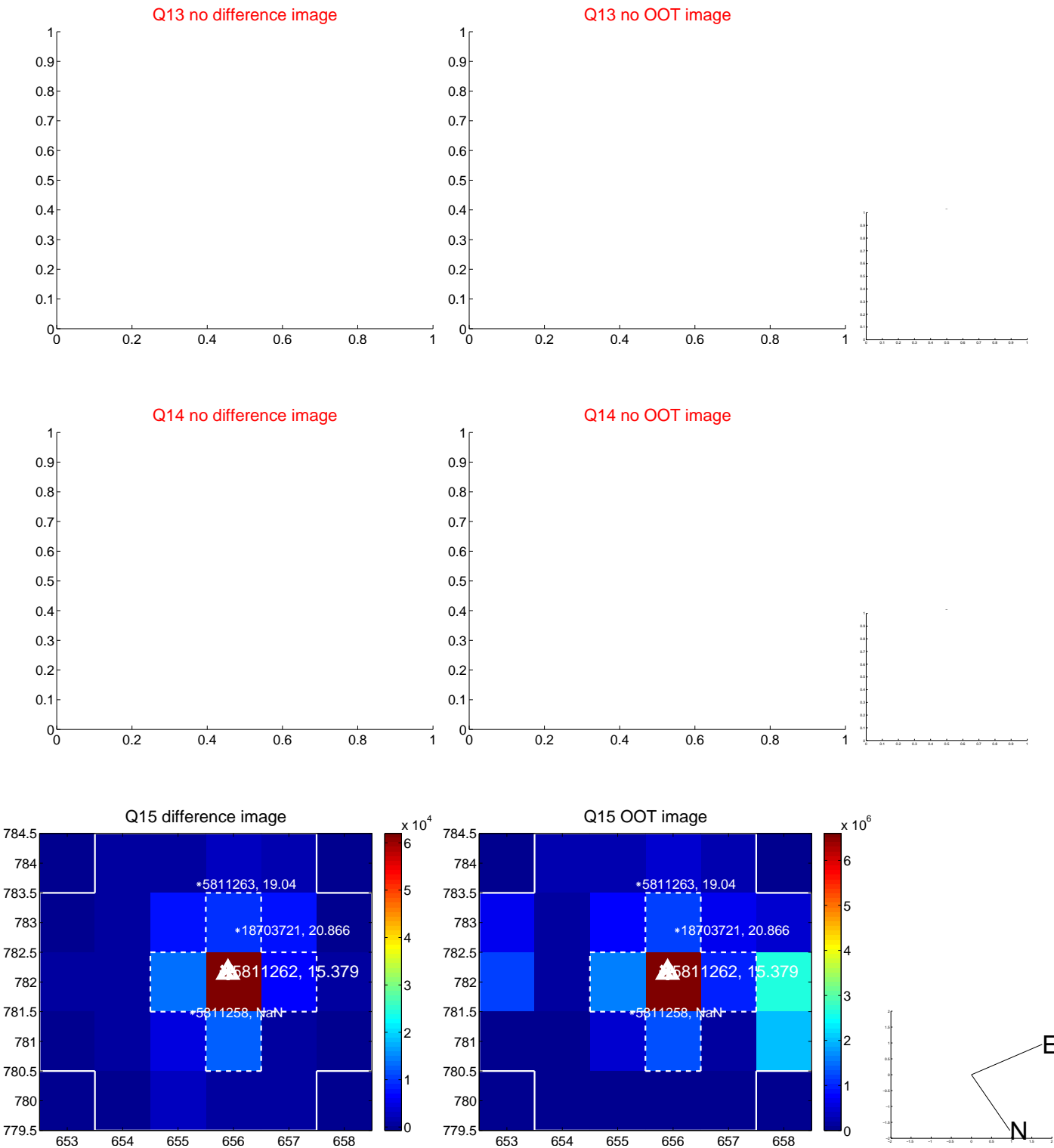
Q8 no OOT image



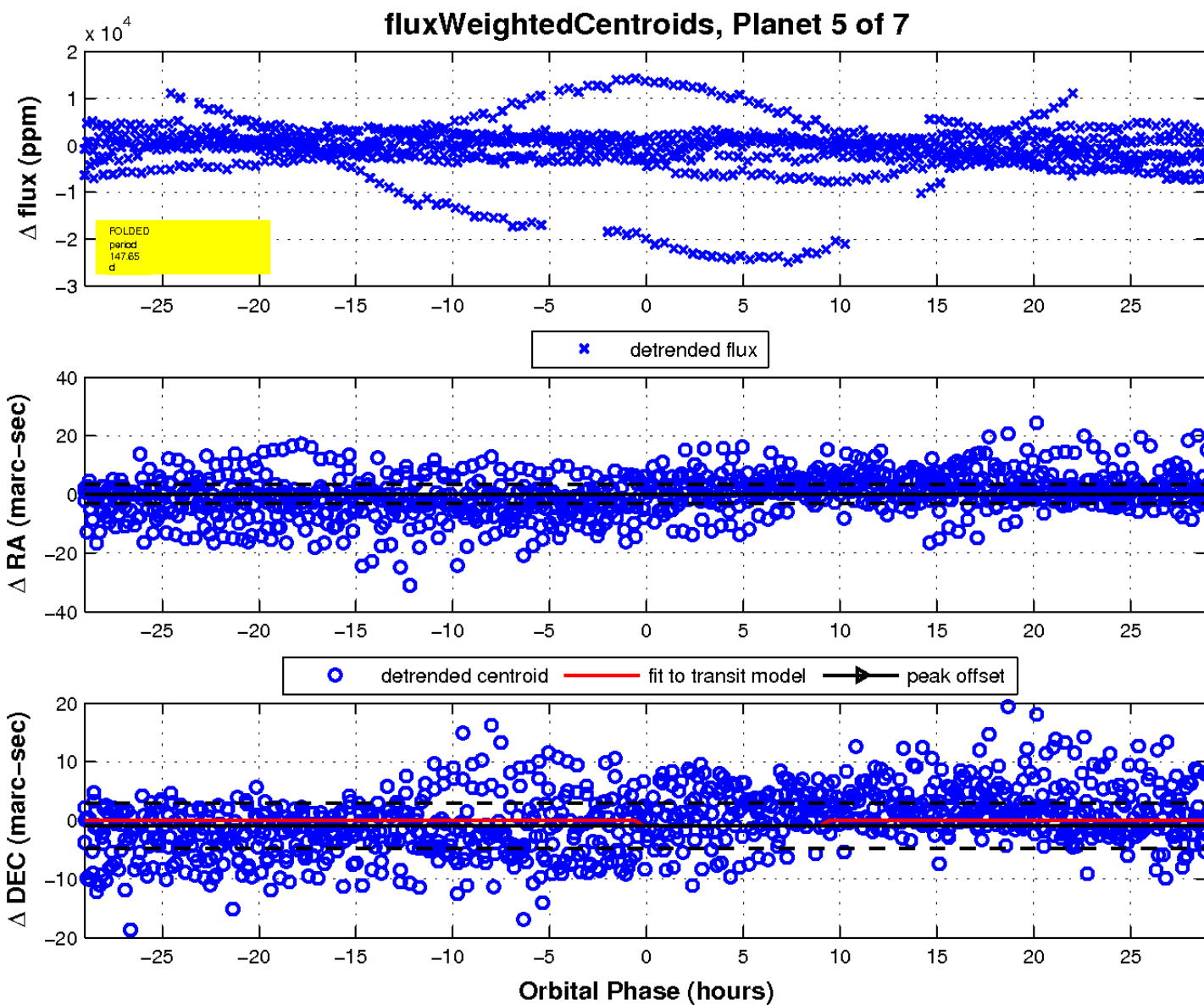
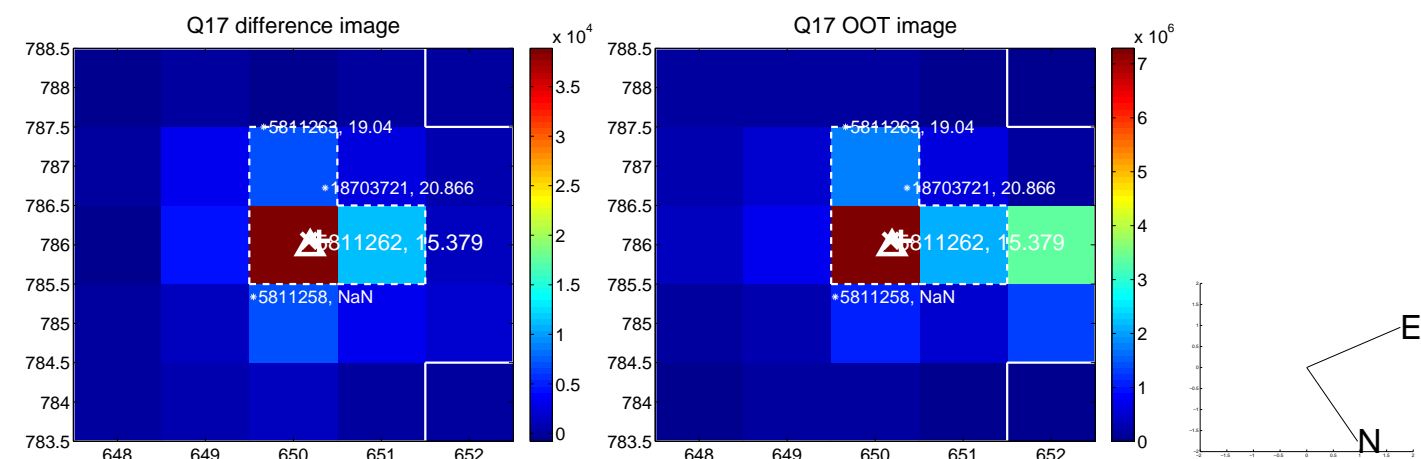
white  $\times$ : KIC target position; +: OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

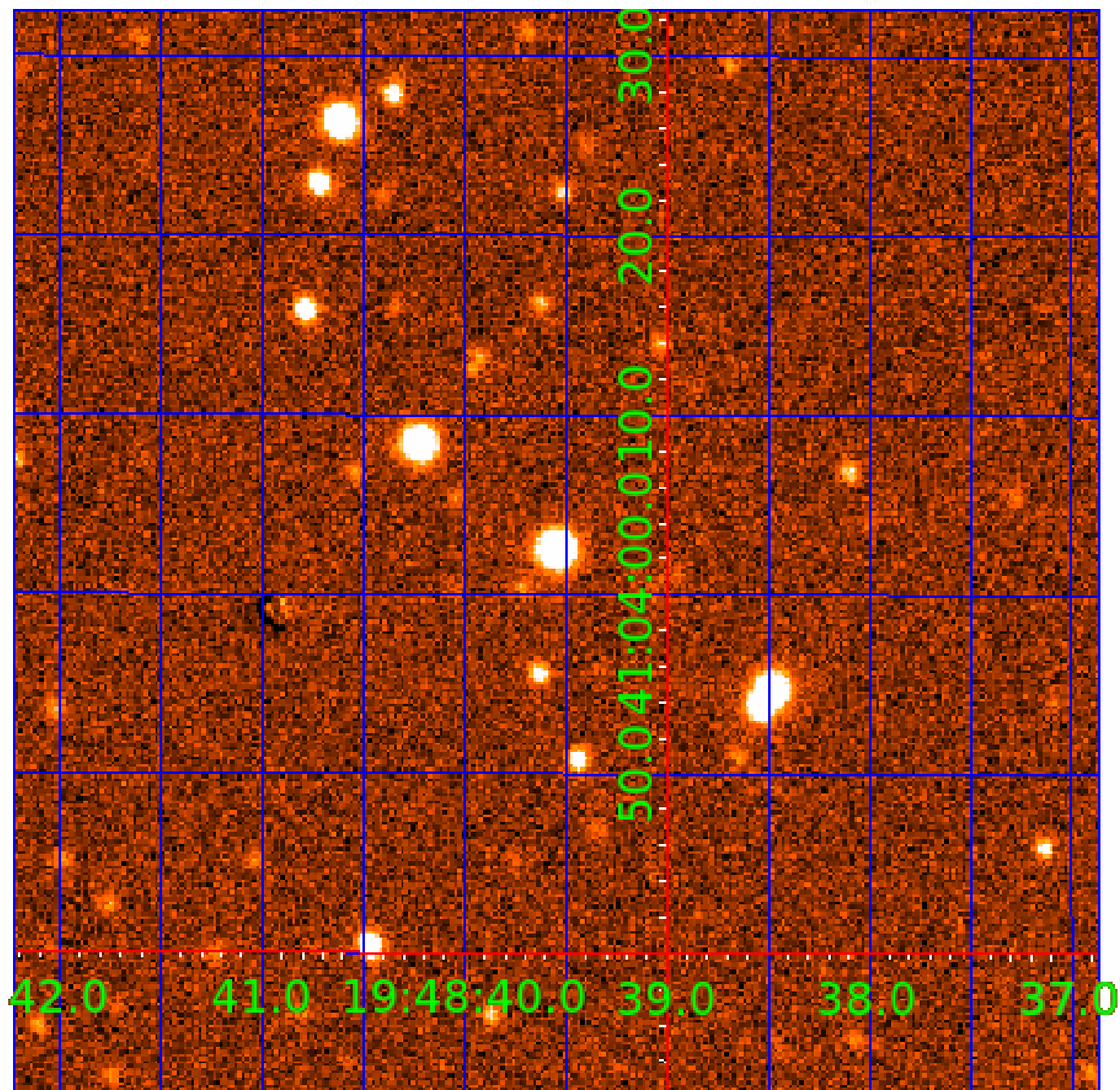


white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination





# KIC 005811262

## Q1-17 DR25 TCE Parameters

TCE	Run Type	KOI?	Period (Days)	Epoch (BKJD)	Depth (ppm)	Duration (Hours)	MES	SNR	$R_{\star}$ ( $R_{\odot}$ )	$T_{\star}$ (K)	$R_p$ ( $R_{\oplus}$ )	$S_p$ ( $S_{\oplus}$ )
005811262-01	OBS	No	2.085942	132.005251	386.7	9.623	9.3	12.2	0.73	5592	1.89	533.94
005811262-02	OBS	No	245.655352	221.389634	3920.8	11.816	9.7	7.6	0.73	5592	5.67	0.93
005811262-03	OBS	No	220.192778	343.804573	2701.5	5.650	11.3	7.9	0.73	5592	4.00	1.07
005811262-05	OBS	No	147.648087	260.055114	1301.1	6.000	9.9	-1.0	0.73	5592	2.62	1.82
005811262-07	OBS	No	303.883293	305.110974	2056.1	6.363	9.1	5.8	0.73	5592	3.83	0.70

## Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005811262-01	OBS	FP	0.00	1	0	0	0	LPP_DV
005811262-02	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE—TRANS_GAPPED—ALL_TRANS_CHASES—MOD_NONUNIQ_DV
005811262-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_CHASES_MARSHALL—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_TER_DV—MOD_POS_DV—MOD_NONUNIQ_ALT—CENT_FEW_DIFFS
005811262-05	OBS	FP	0.00	1	0	1	0	INDIV_TRANS_RUBBLE_SKYE—TRANS_GAPPED—LPP_DV—ALL_TRANS_CHASES—INCONSISTENT_TRANS—CENT_NOFITS—HALO_GHOST
005811262-07	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_MARSHALL—LPP_DV—ALL_TRANS_CHASES

**Notes:** OBS = Observed. INJ = Injected. INV = Inverted. SCR = Scrambled.

N = Not Transit-Like. S = Stellar Eclipse. C = Centroid Offset. E = Ephemeris Match.

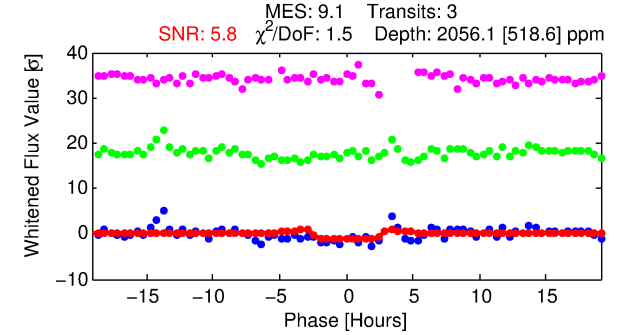
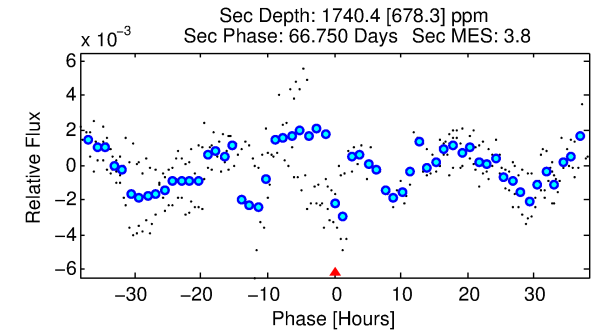
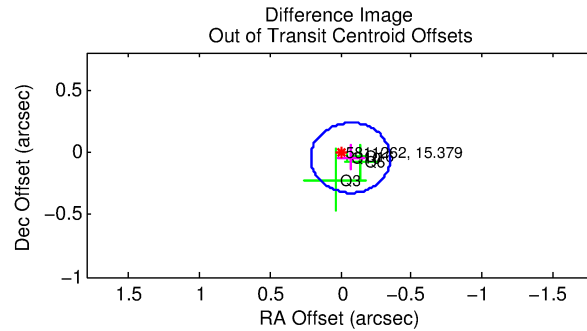
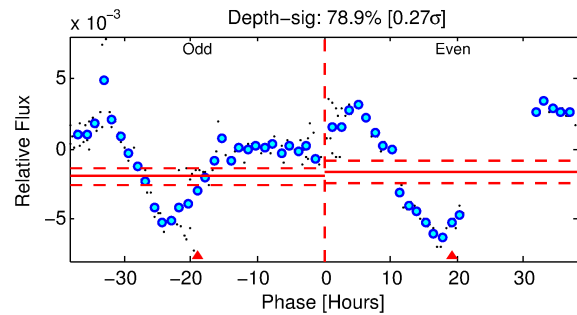
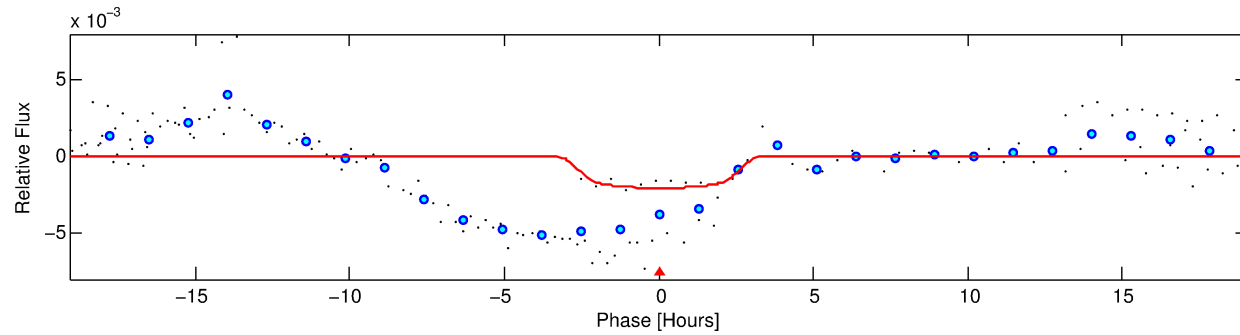
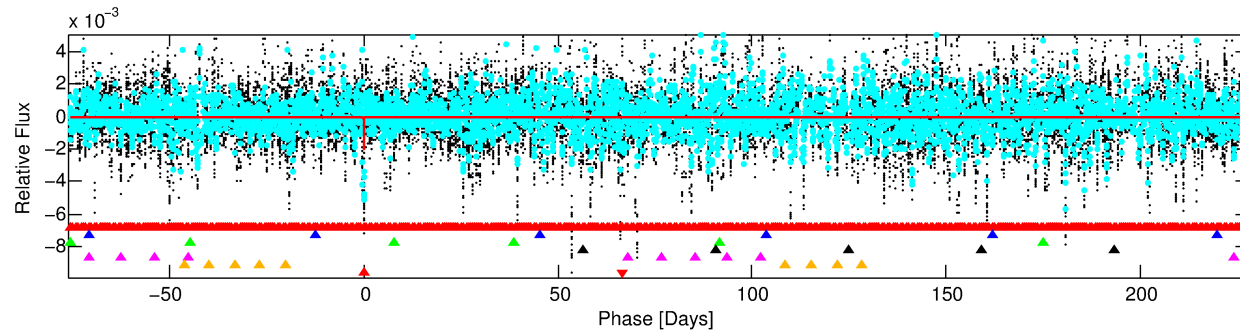
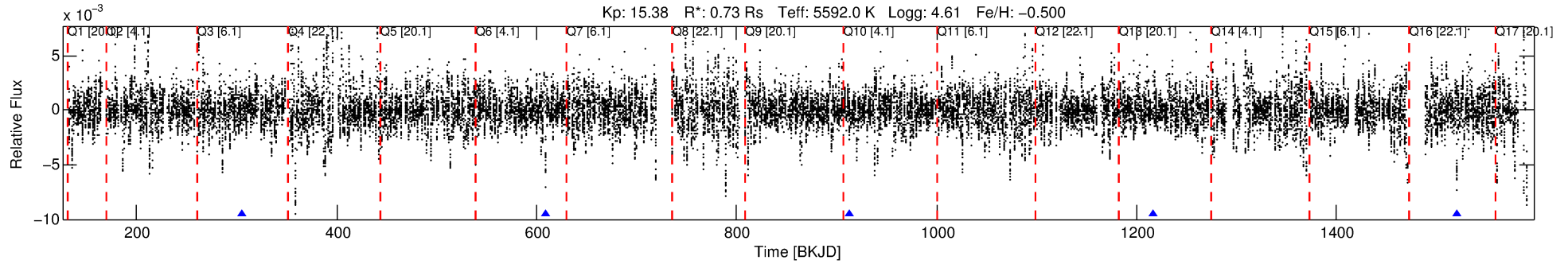
See [http://exoplanetarchive.ipac.caltech.edu/docs/API\\_kepcandidate\\_columns.html#proj\\_disp\\_col](http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col) for comment definitions.

## Ephemeris Match Information For 005811262-07

No Significant Match Found

# DV One-Page Summary

KIC: 5811262 Candidate: 7 of 7 Period: 303.883 d



## DV Fit Results:

Period = 303.88329 [0.00825] d  
Epoch = 305.1110 [0.0209] BKJD  
Rp/R\* = 0.0479 [0.0092]  
a/R\* = 215.78 [122.78]  
b = 0.87 [0.17]  
Seff = 0.70 [0.19]  
Teq = 233 [16] K  
Rp = 3.83 [1.07] Re  
a = 0.8221 [0.1376] AU  
Ag = 44021.84 [26303.28] [1.67 $\sigma$ ]  
Teffp = 5217 [731] K [6.81 $\sigma$ ]

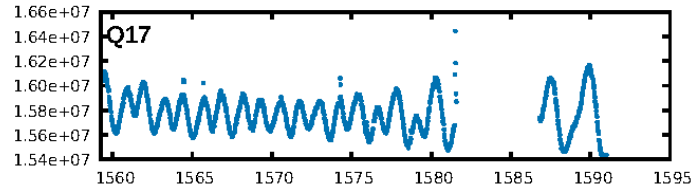
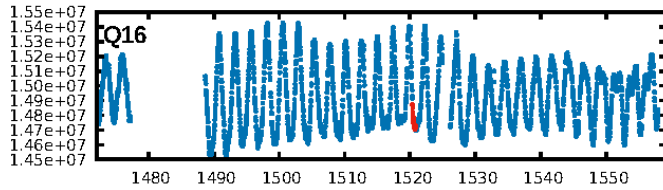
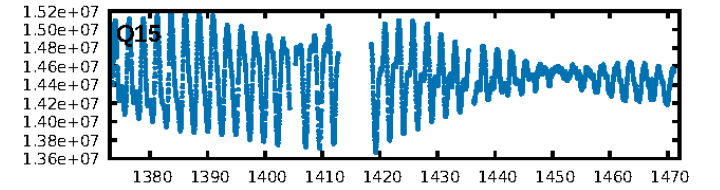
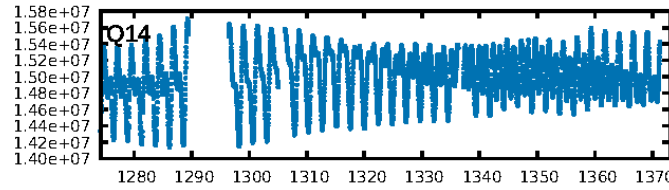
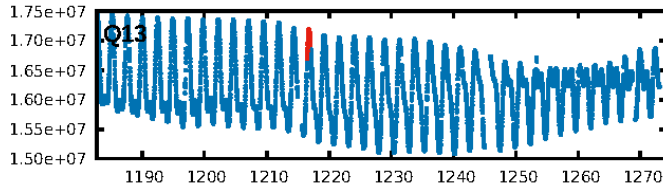
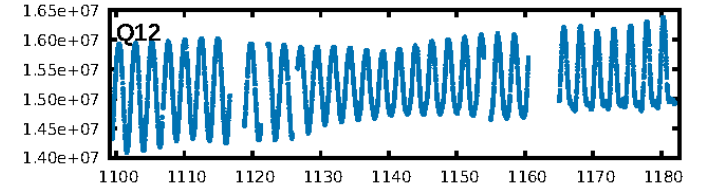
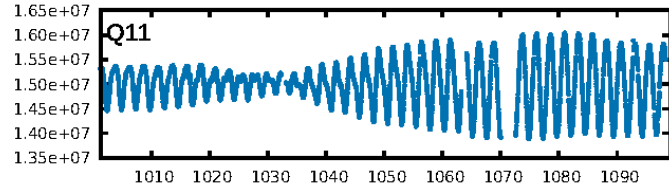
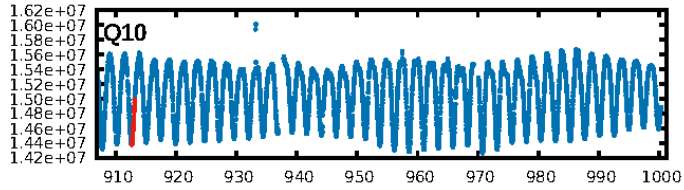
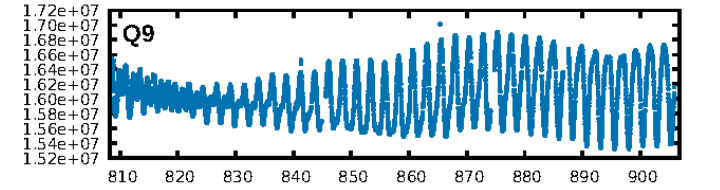
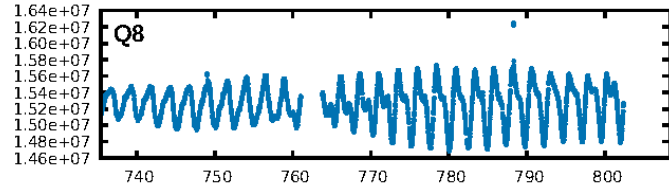
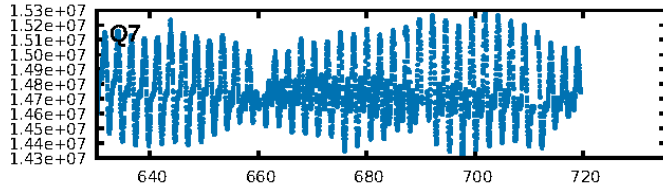
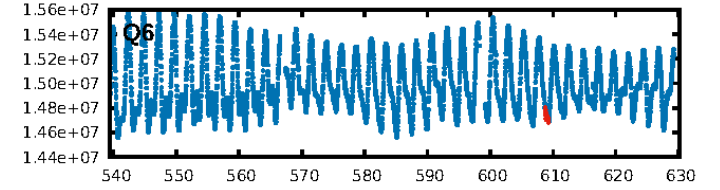
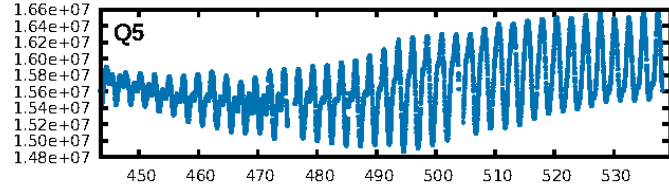
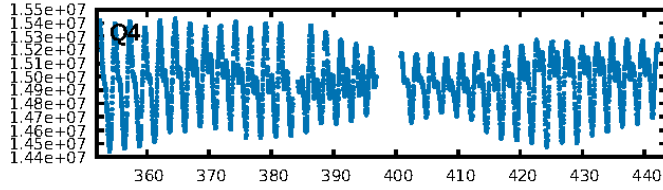
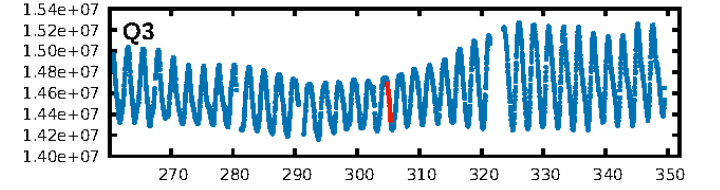
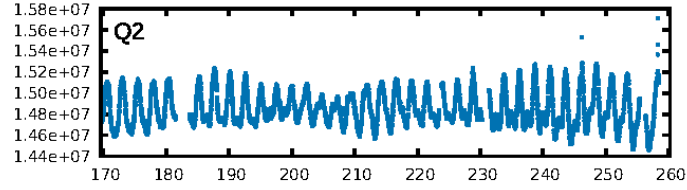
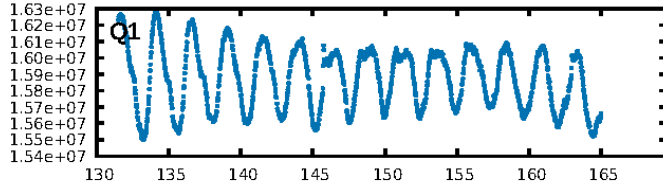
## DV Diagnostic Results:

ShortPeriod-sig: 100.0% [83.38 $\sigma$ ]  
LongPeriod-sig: N/A  
ModelChiSquare2-sig: 42.6%  
ModelChiSquareGof-sig: 88.7%  
**Bootstrap-pfa: 1.33e-08**  
RollingBand-fgt: 1.00 [3/3]  
GhostDiagnostic-chr: 39.78  
Centroid-sig: 87.5%  
Centroid-so: 1.129 arcsec [1.22 $\sigma$ ]  
OotOffset-rm: 0.083 arcsec [0.89 $\sigma$ ]  
OotOffset-st: 2/1/1/0 [4]  
KicOffset-rm: 0.019 arcsec [0.20 $\sigma$ ]  
KicOffset-st: 2/1/1/0 [4]  
DiffImageQuality-fgm: 0.75 [3/4]  
DiffImageOverlap-fno: 0.25 [1/4]

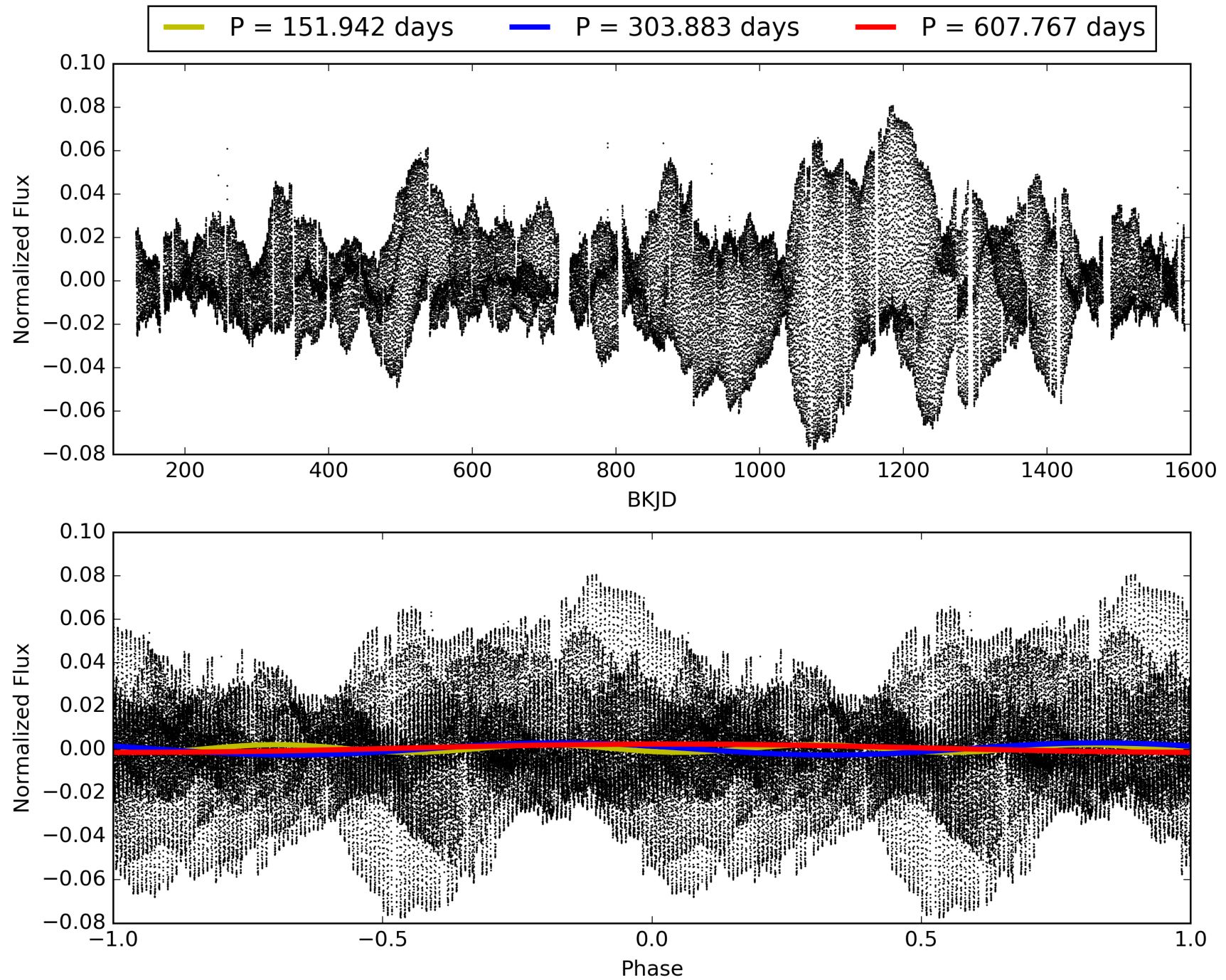
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 03-Feb-2016 08:55:10 Z

This Data Validation Report Summary was produced in the Kepler Science Operations Center Pipeline at NASA Ames Research Center

# TCE 005811262-07, PDC Light Curves

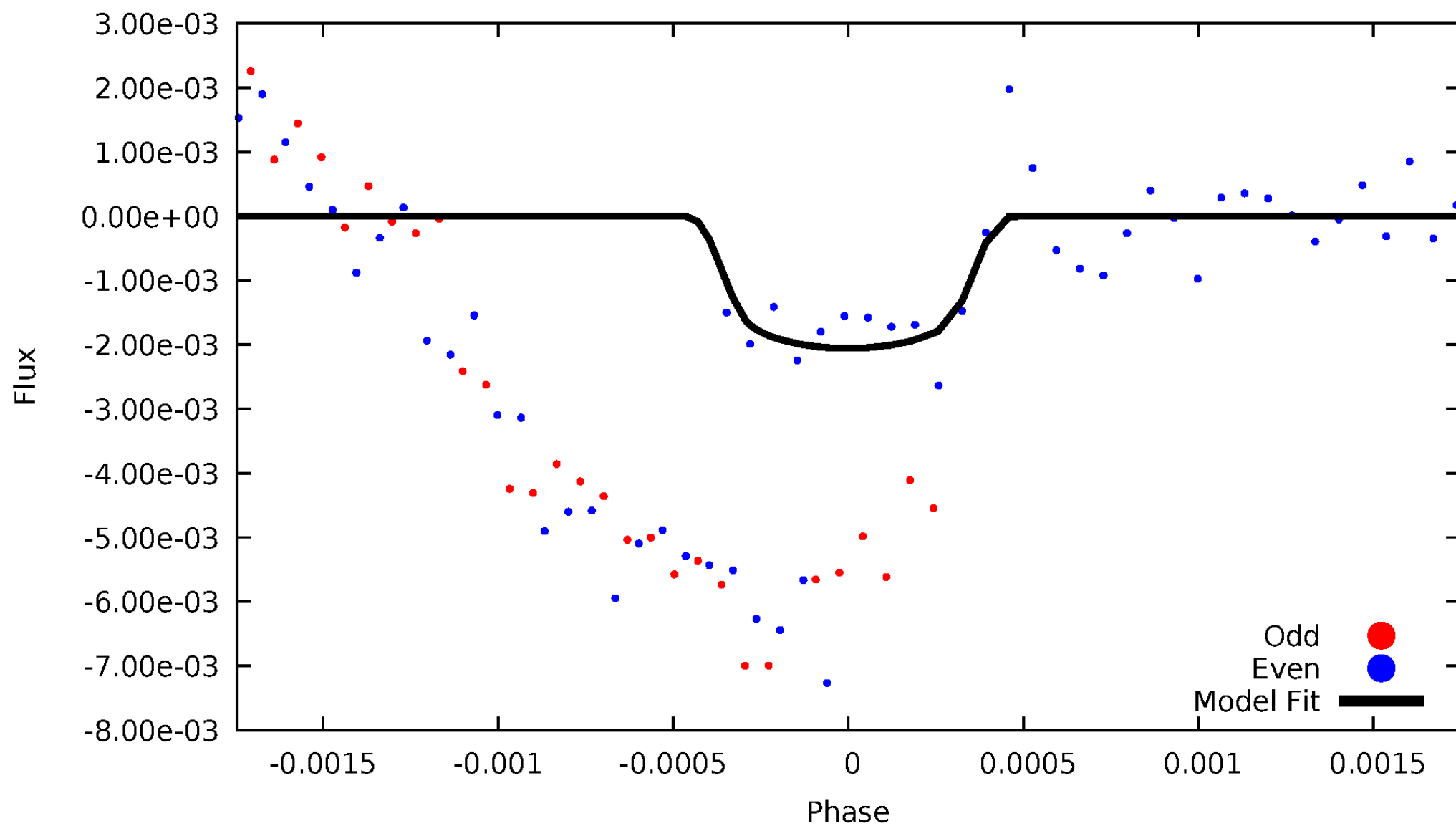


TCE 005811262-07



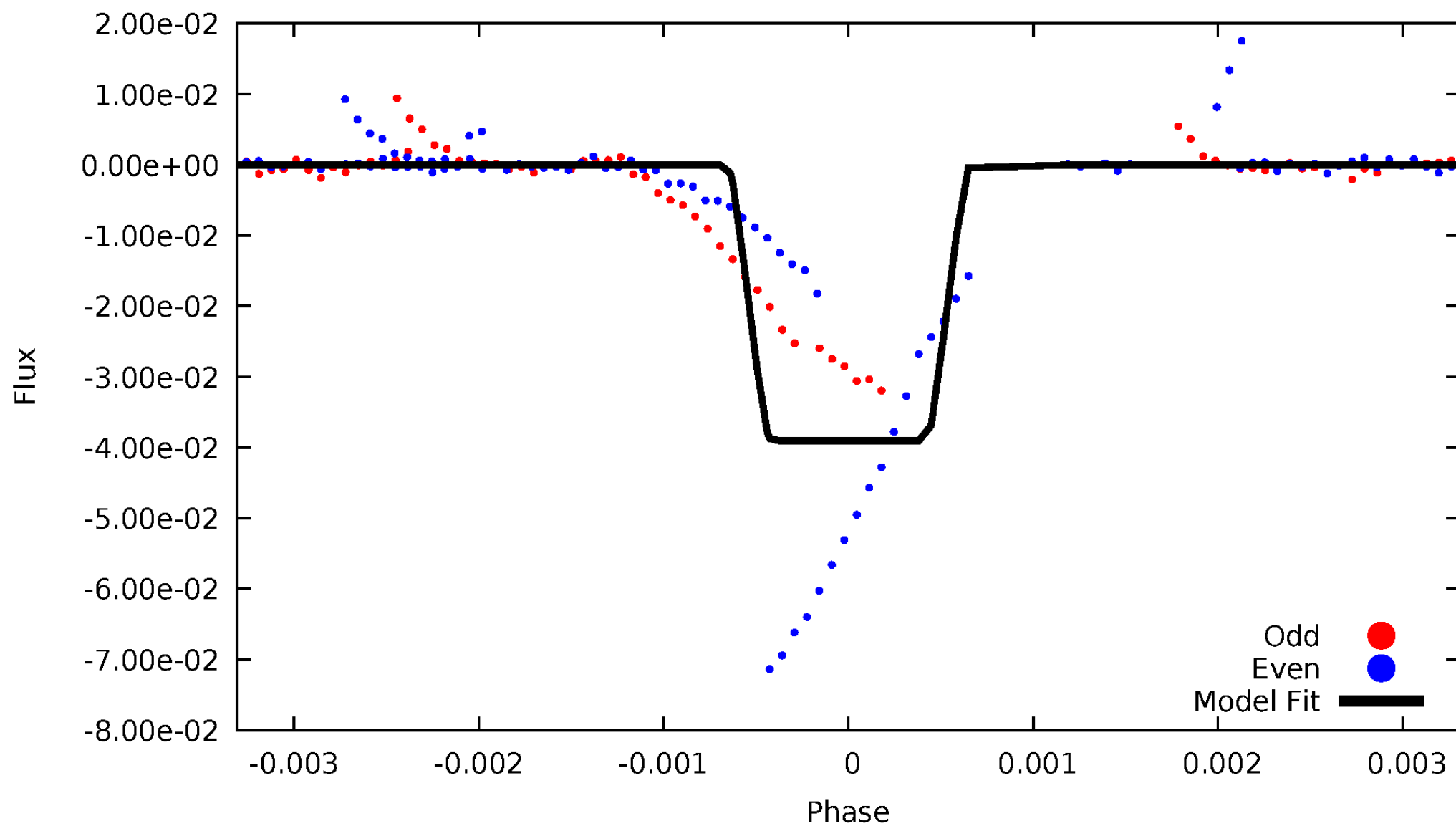
# DV Odd/Even

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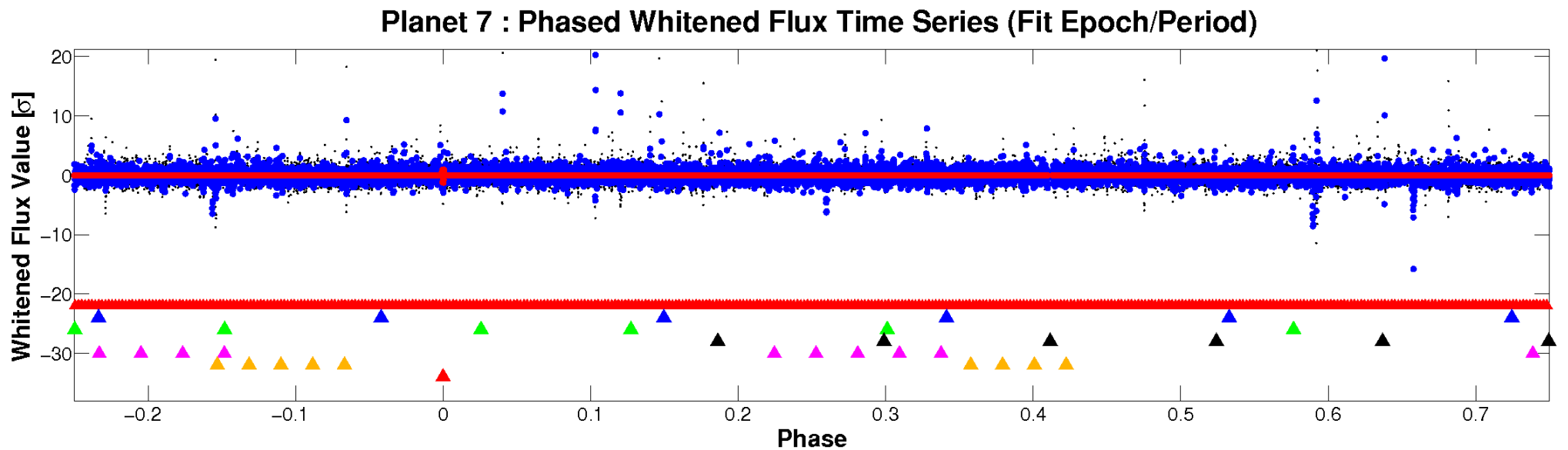
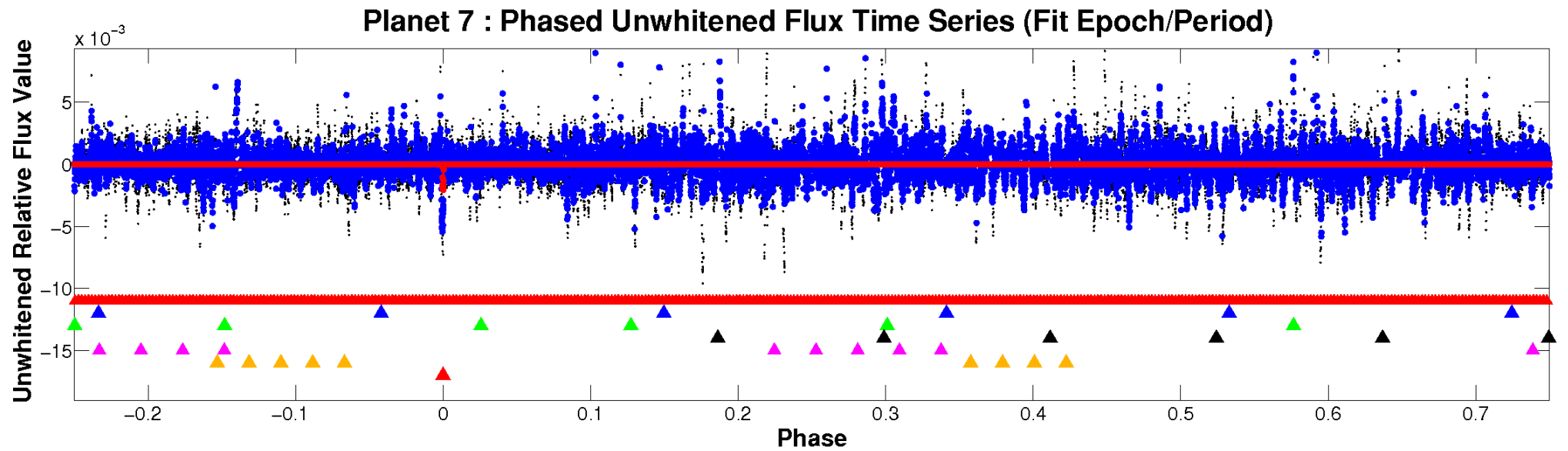


# ALT Odd/Even

TCE 005811262-07



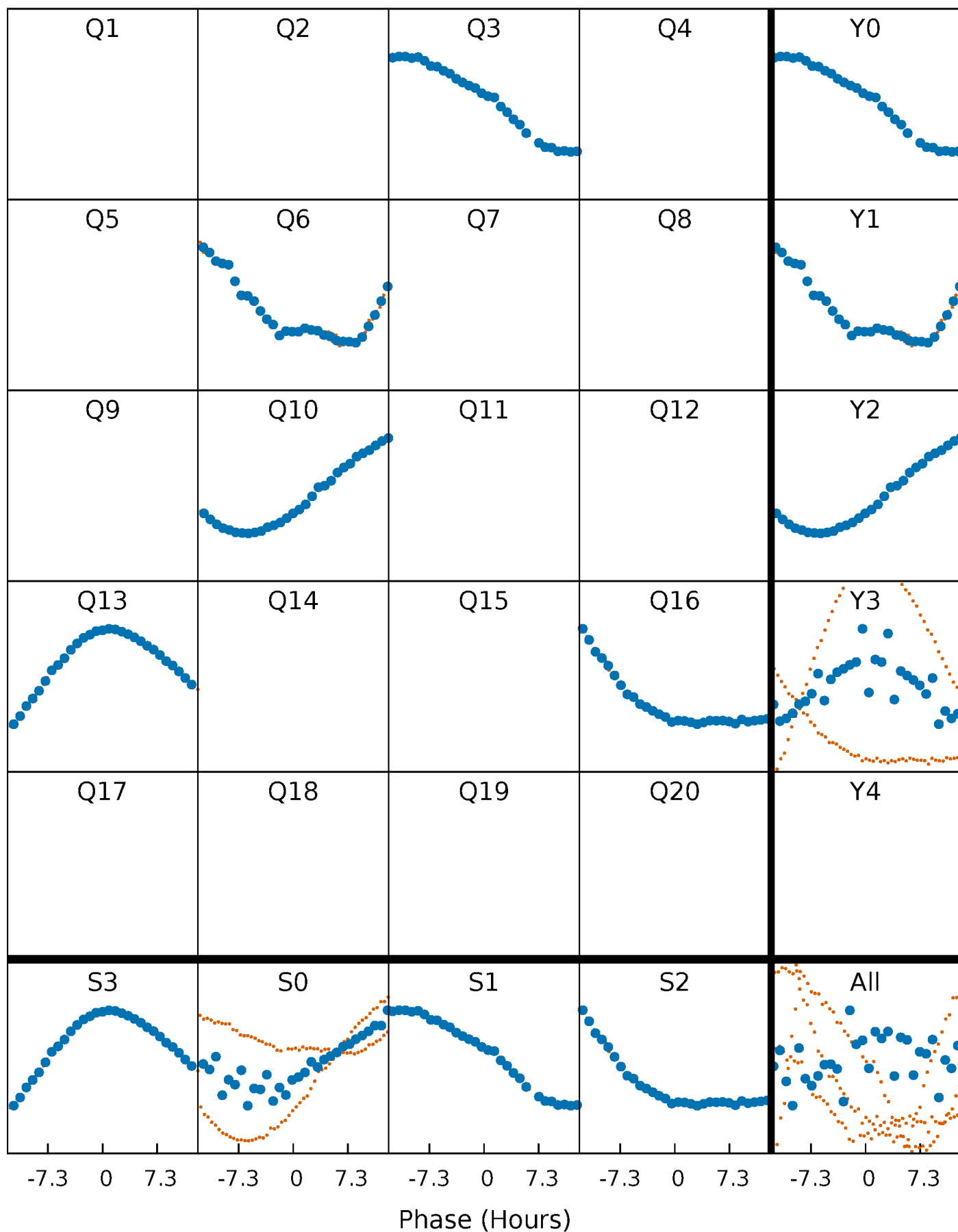
# Non-Whitened Vs. Whitened Light Curve





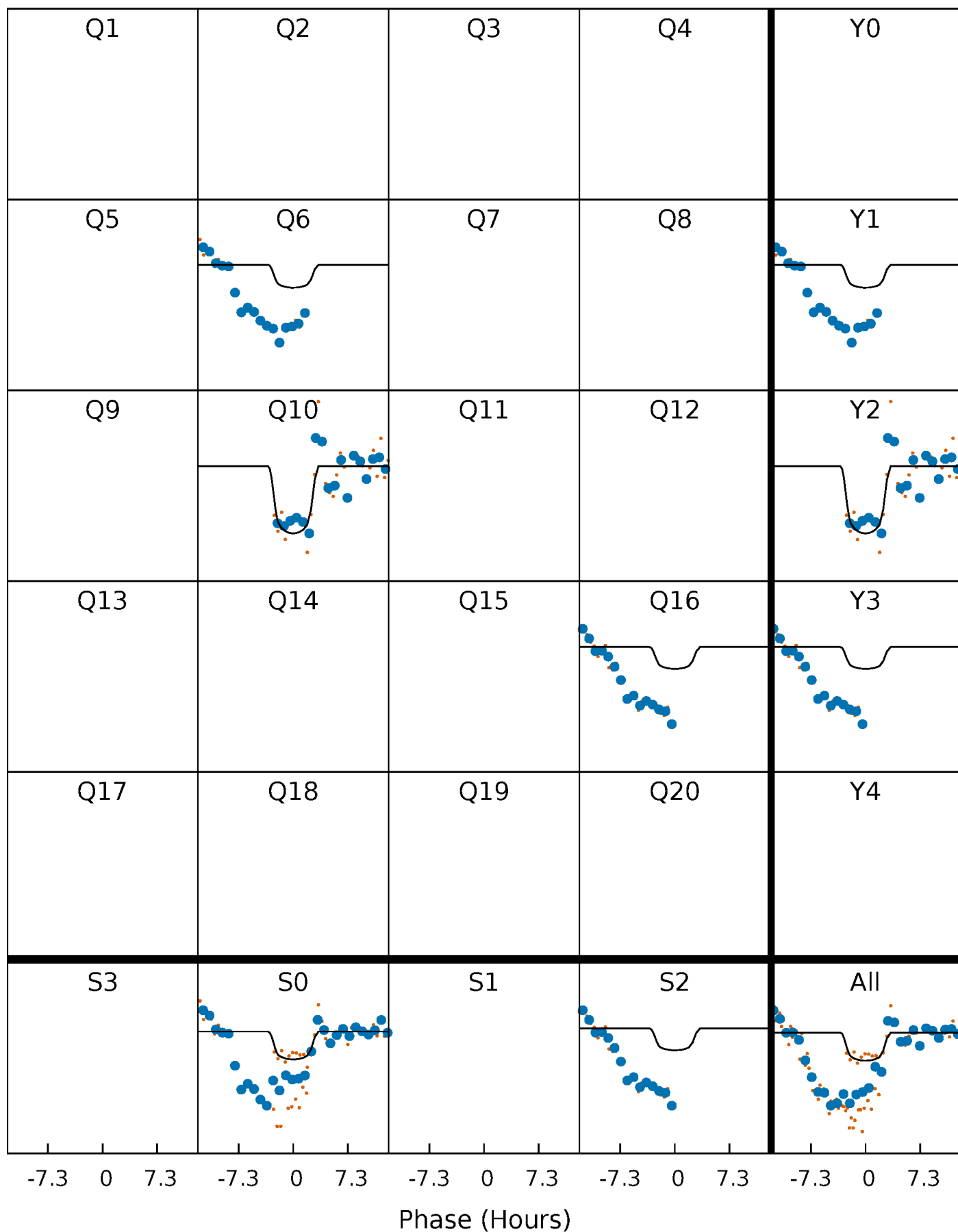
# PDC Quarter-Phased Transit Curves

TCE 005811262-07     $P=303.883293$  Days     $T_0=305.110974$  (BKJD)



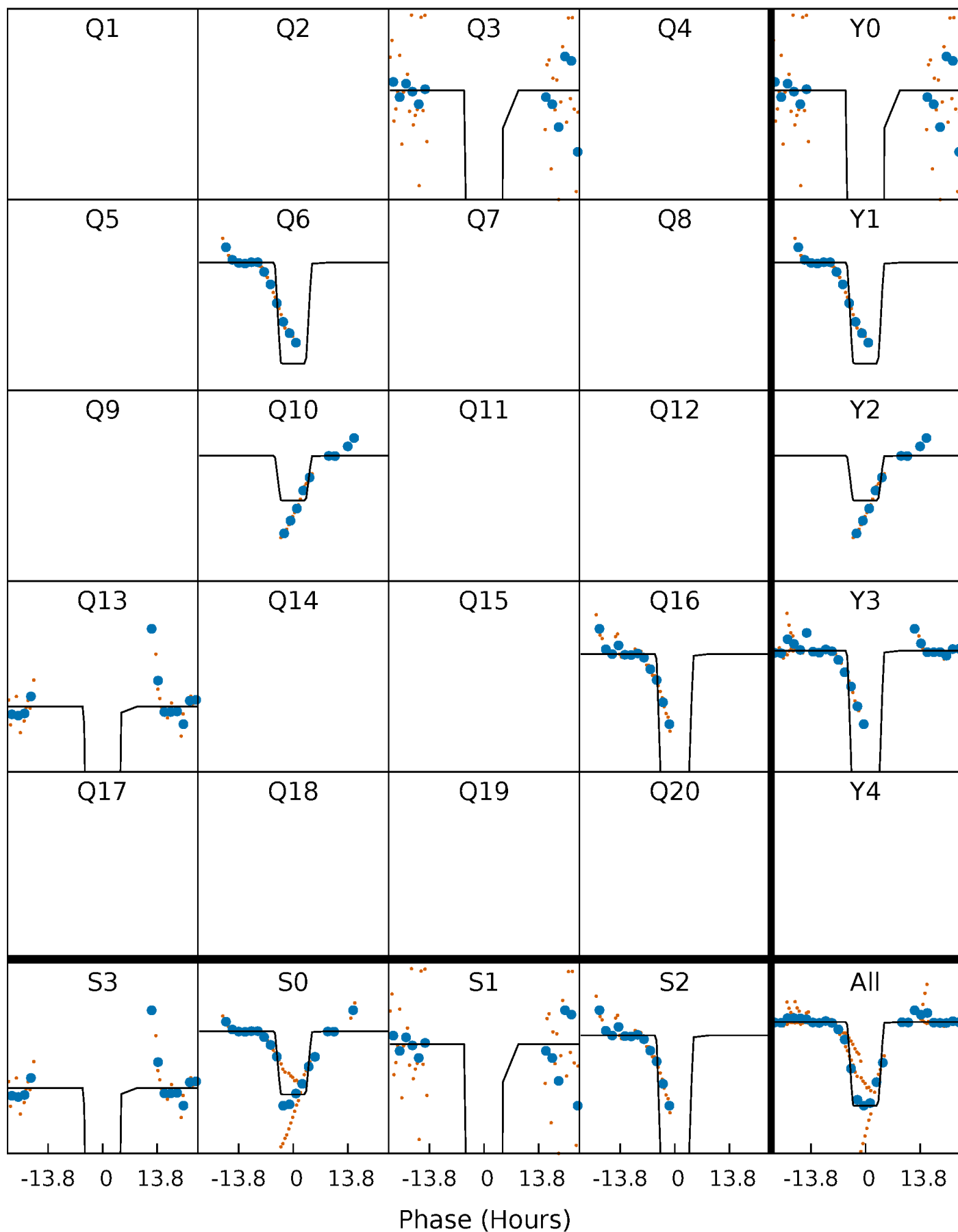
# DV Quarter-Phased Transit Curves

TCE 005811262-07 P=303.883293 Days  $T_0=305.110974$  (BKJD)



# Alt. Detrend Quarter-Phased Transit Curves

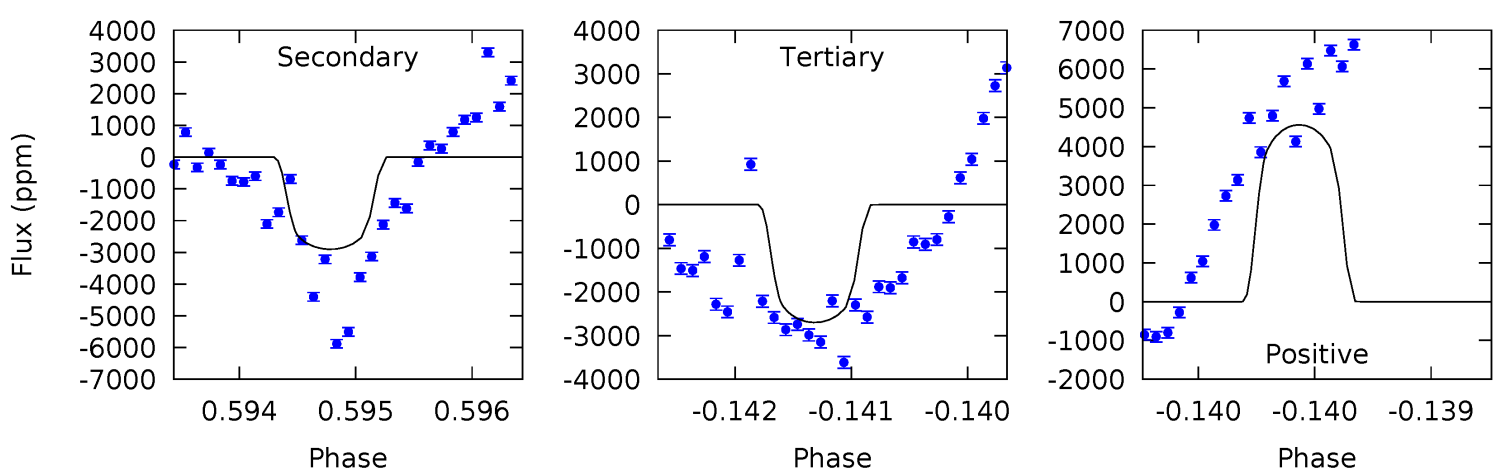
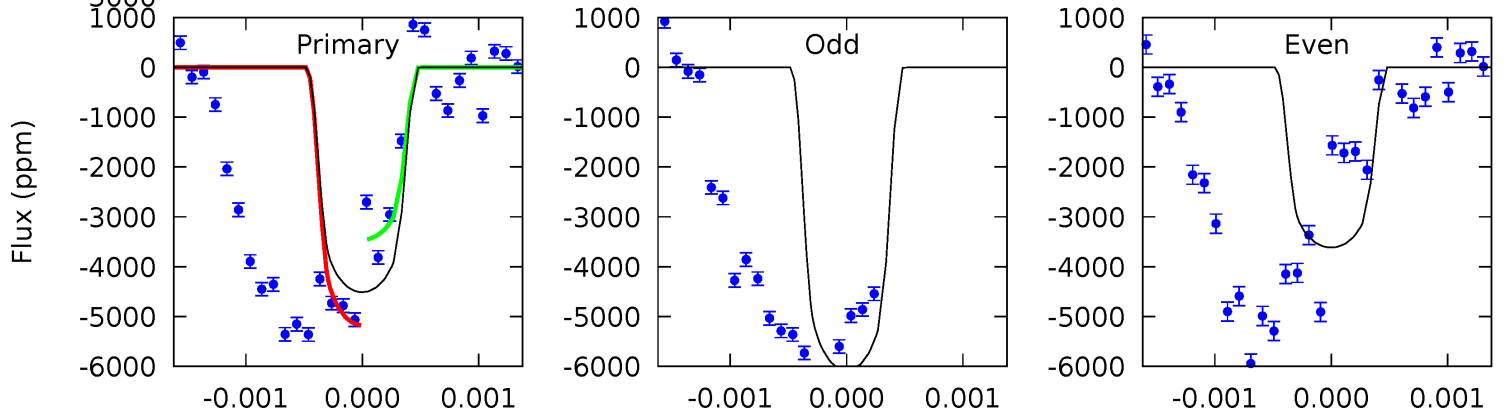
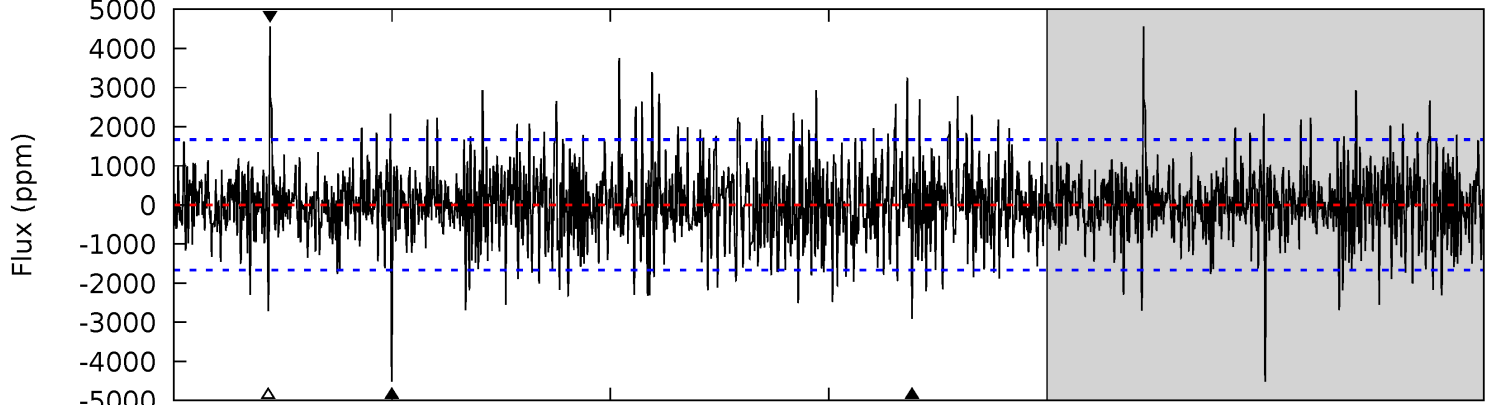
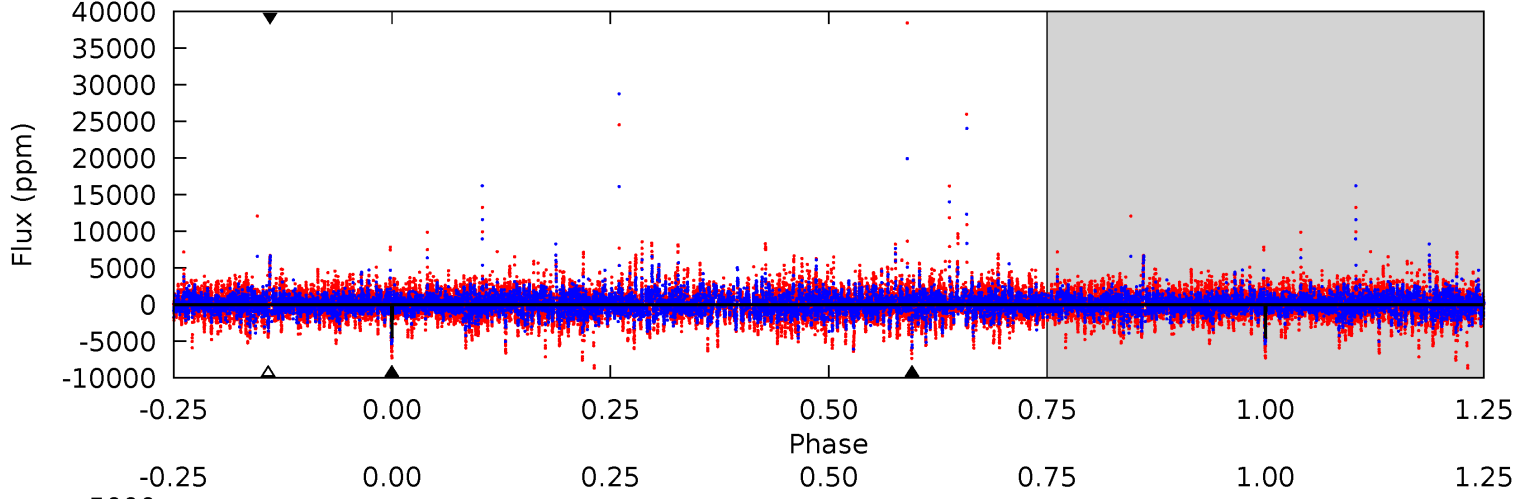
TCE 005811262-07 P=303.887904 Days  $T_0=305.125483$  (BKJD)



# DV Model-Shift Uniqueness Test

005811262-07, P = 303.883293 Days, E = 1.227681 Days

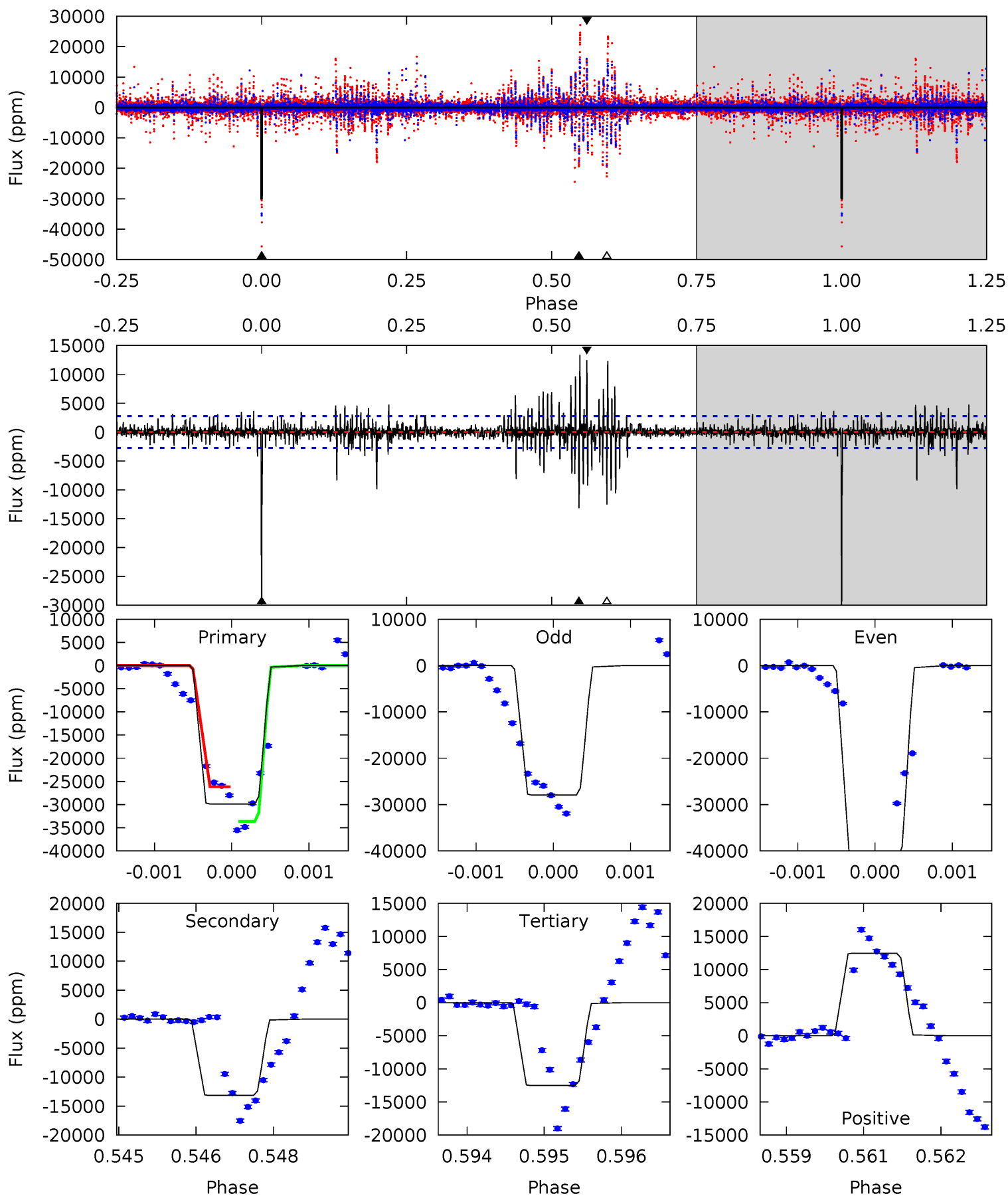
Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.8	9.51	8.84	14.9	5.46	3.30	2.63	5.94	-0.15	0.67	-5.42	3.69	0.84	0.50	2.74



# Alt Model-Shift Uniqueness Test

005811262-07, P = 303.887904 Days, E = 1.237579 Days

Pri	Sec	Ter	Pos	FA <sub>1</sub>	FA <sub>2</sub>	F <sub>Red</sub>	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
58.5	25.8	24.5	24.4	5.41	3.22	2.58	34.0	34.1	1.25	1.38	14.8	1.12	0.31	6.46



### Stellar Parameters For KIC 005811262

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R$ ( $R_{\odot}$ )	$M(M_{\odot})$	$p_{\star}$ ( $\text{g}\cdot\text{cm}^{-3}$ )
	$5592^{+167}_{-167}$	$4.612^{+0.040}_{-0.128}$	$-0.500^{+0.300}_{-0.300}$	$0.733^{+0.149}_{-0.053}$	$0.824^{+0.078}_{-0.087}$	$2.948^{+0.509}_{-1.115}$
	+3%/-3%	+1%/-3%	+60%/-60%	+20%/-7%	+9%/-11%	+17%/-38%
Source	PHO1	KIC0	KIC0	DSEP		

KIC = Kepler Input Catalog; PHO = Photometry; SPE = Spectroscopy; AST = Asteroseismology  
 TRA = Transits; DESP = Dartmouth Models; MULT = Multiple Models

### Secondary Eclipse Parameters for KIC 005811262-07 / KOI

Detrend	Depth (ppm)	$R_p$ ( $R_{\oplus}$ )	$T_{max}$ (K)	$T_{obs}$ (K)	$A_{obs}$
DV	$-2904 \pm 305$	$3.94^{+0.83}_{-0.77}$	$330^{+16}_{-14}$	$5939^{+687}_{-536}$	$69901^{+38575}_{-22492}$
Alt.	$-13162 \pm 511$	$16.22^{+1.71}_{-1.20}$	$331^{+16}_{-13}$	$4467^{+142}_{-140}$	$18829^{+2940}_{-2988}$

$T_{max}$  = Theoretical Maximum Planetary Temperature

$T_{obs}$  = Observed Planetary Temperature (Assuming  $A=0.3$ )

$A_{obs}$  = Observed Albedo (Assuming  $T=0$ )

If a secondary eclipse is present, the system is likely an EB if  $T_{obs} \gg T_{max}$  AND  $A_{obs} \gg 1.0$

## DV Centroid Data

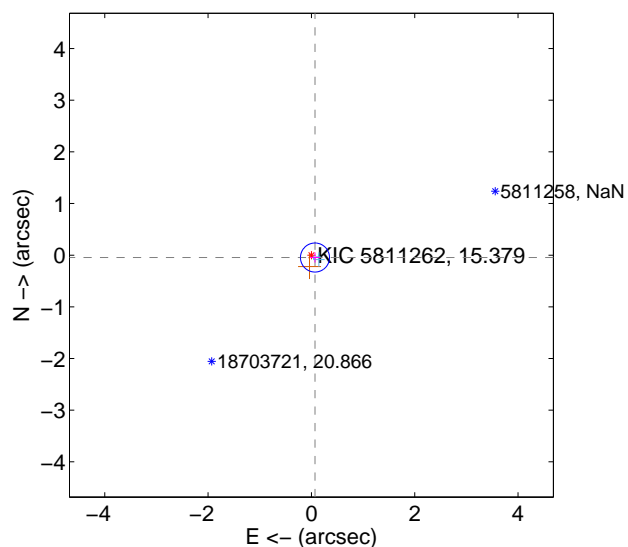
Supplemental centroid analysis for 005811262-07. Kepler magnitude: 15.38. Transit SNR 5.77

There are 3 quarters with good PRF difference image offsets

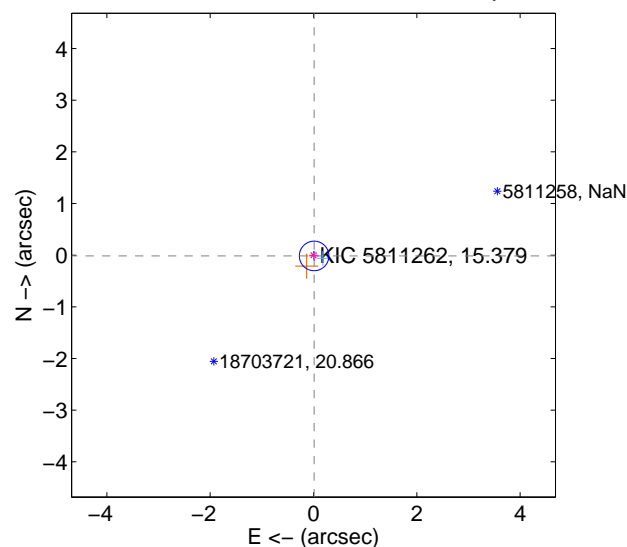
The direct PRF centroid is offset from the target star catalog position by about 0.13 arcsec

	Distance in arcsec	Distance / $\sigma$	$\Delta$ RA	$\Delta$ Dec
PRF-fit source offset from OOT	$0.083 \pm 0.094$	0.89	$-0.069 \pm 0.092$	$-0.046 \pm 0.098$
PRF-fit source offset from KIC position	$0.019 \pm 0.095$	0.20	$-0.012 \pm 0.092$	$-0.015 \pm 0.098$
photometric centroid source offset	$1.13 \pm 0.92$	1.22	$0.78 \pm 1.00$	$0.82 \pm 0.85$

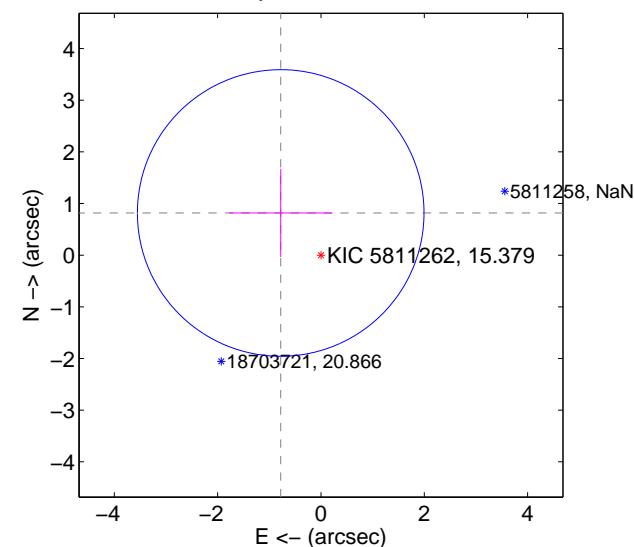
offset from difference PRF-fit to OOT PRF-fit



offset from difference PRF-fit to KIC position



offset from photometric centroids



Centroid source offsets from the target star reconstructed from PRF and photometric centroids. Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- $\sigma$  uncertainty. Blue circle: three- $\sigma$ . Red \*: target star. Blue \*: Other stars. Text next to a star gives its KIC ID and kepmag. KIC IDs > 15,000,000 are from the UKIRT catalog.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

Q1 no difference image



Q1 no OOT image



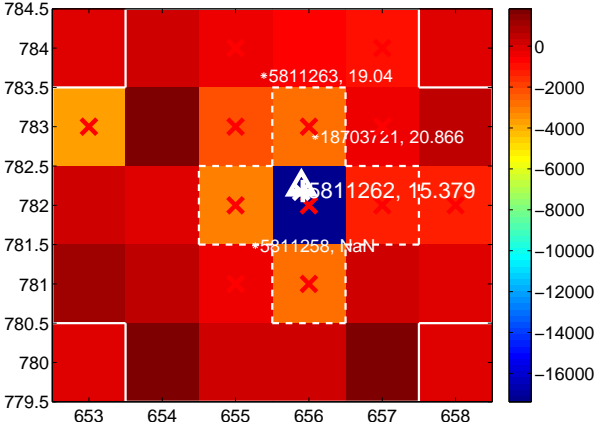
Q2 no difference image



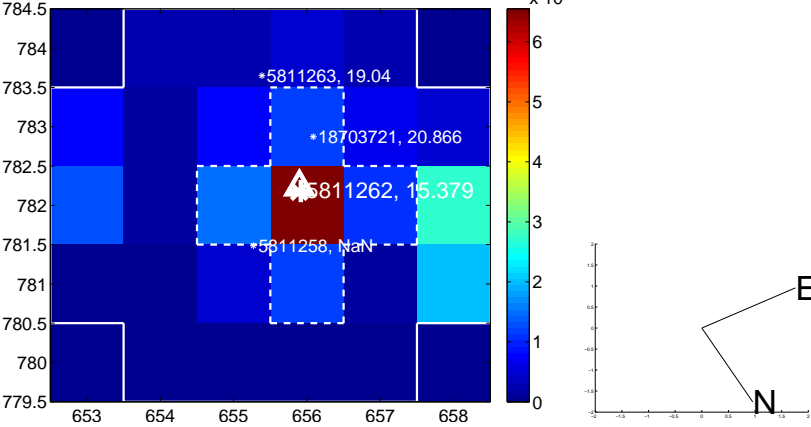
Q2 no OOT image



Q3 difference image. Poor Quality



Q3 OOT image



Q4 no difference image



Q4 no OOT image



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.

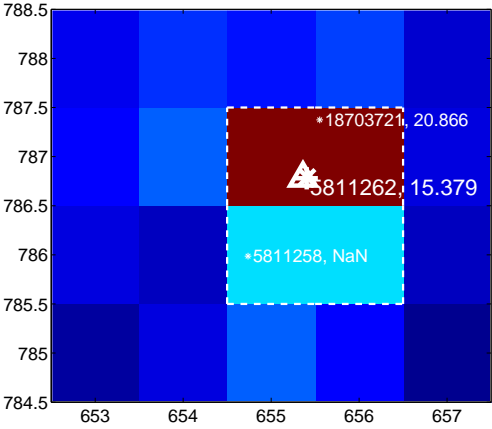
Q5 no difference image



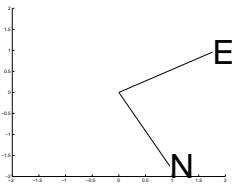
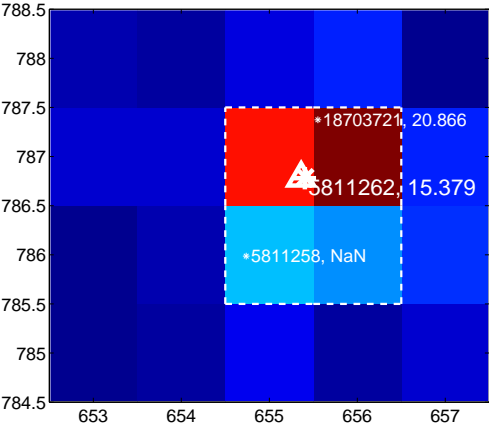
Q5 no OOT image



Q6 difference image



Q6 OOT image



Q7 no difference image



Q7 no OOT image



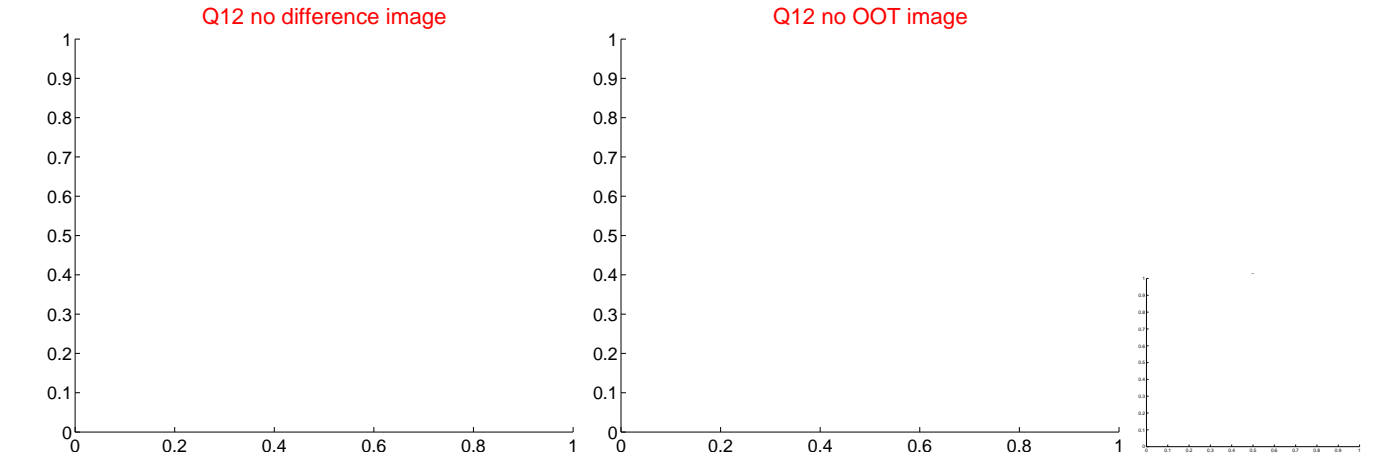
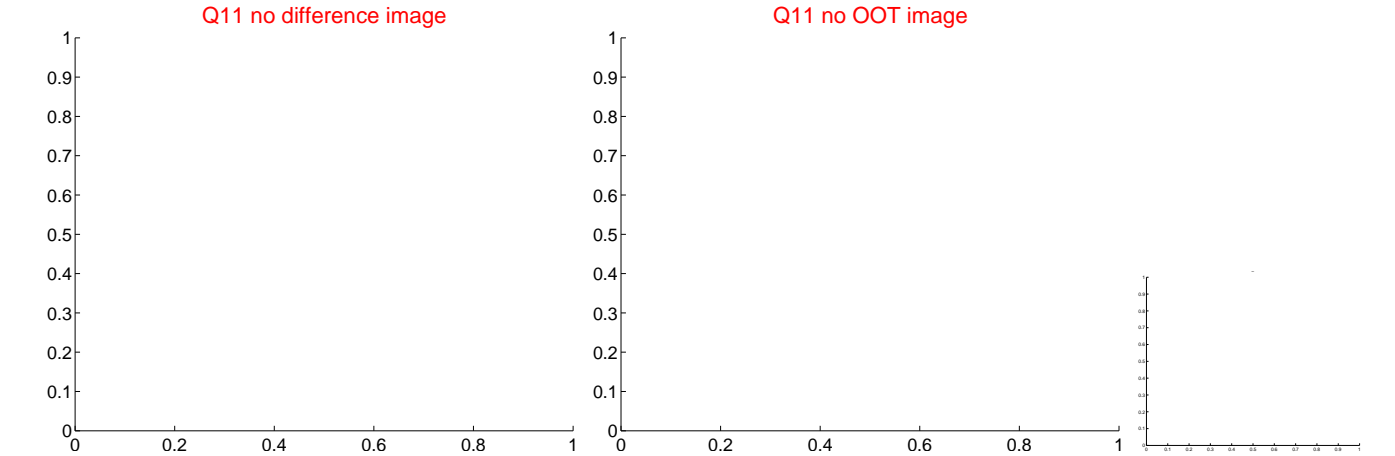
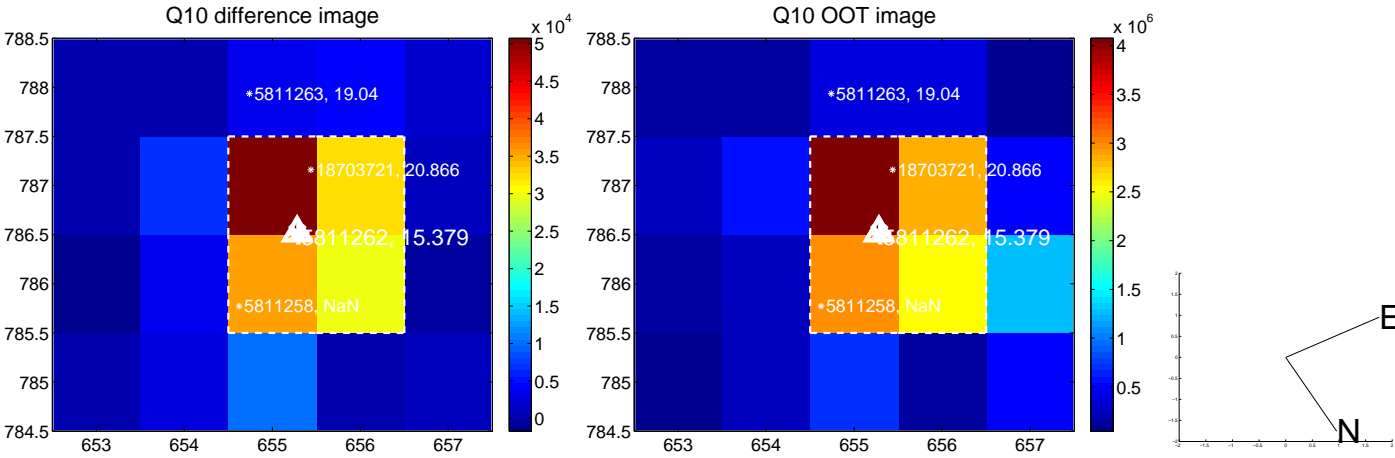
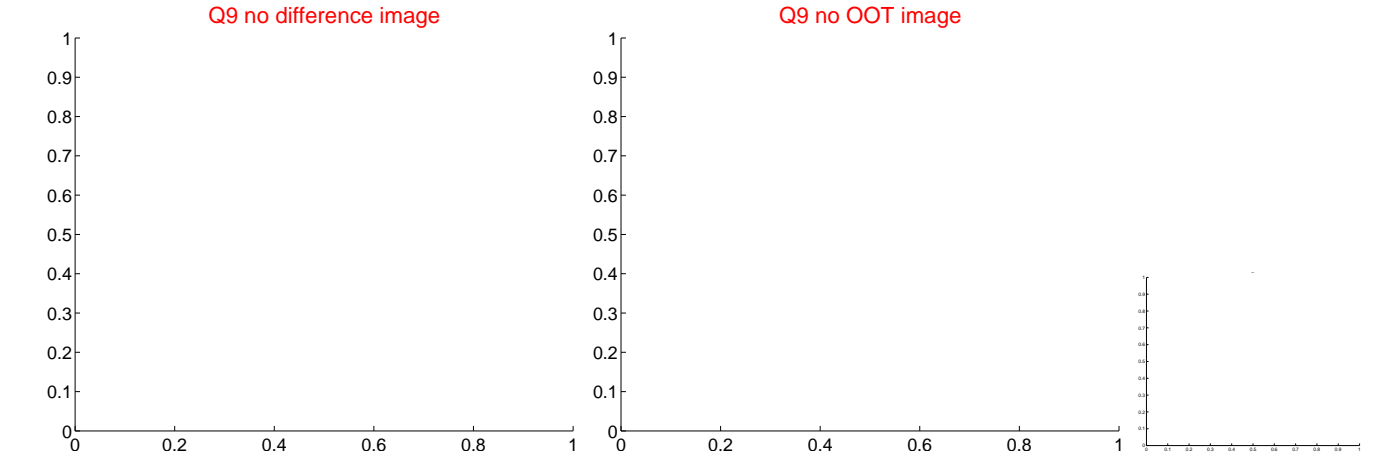
Q8 no difference image



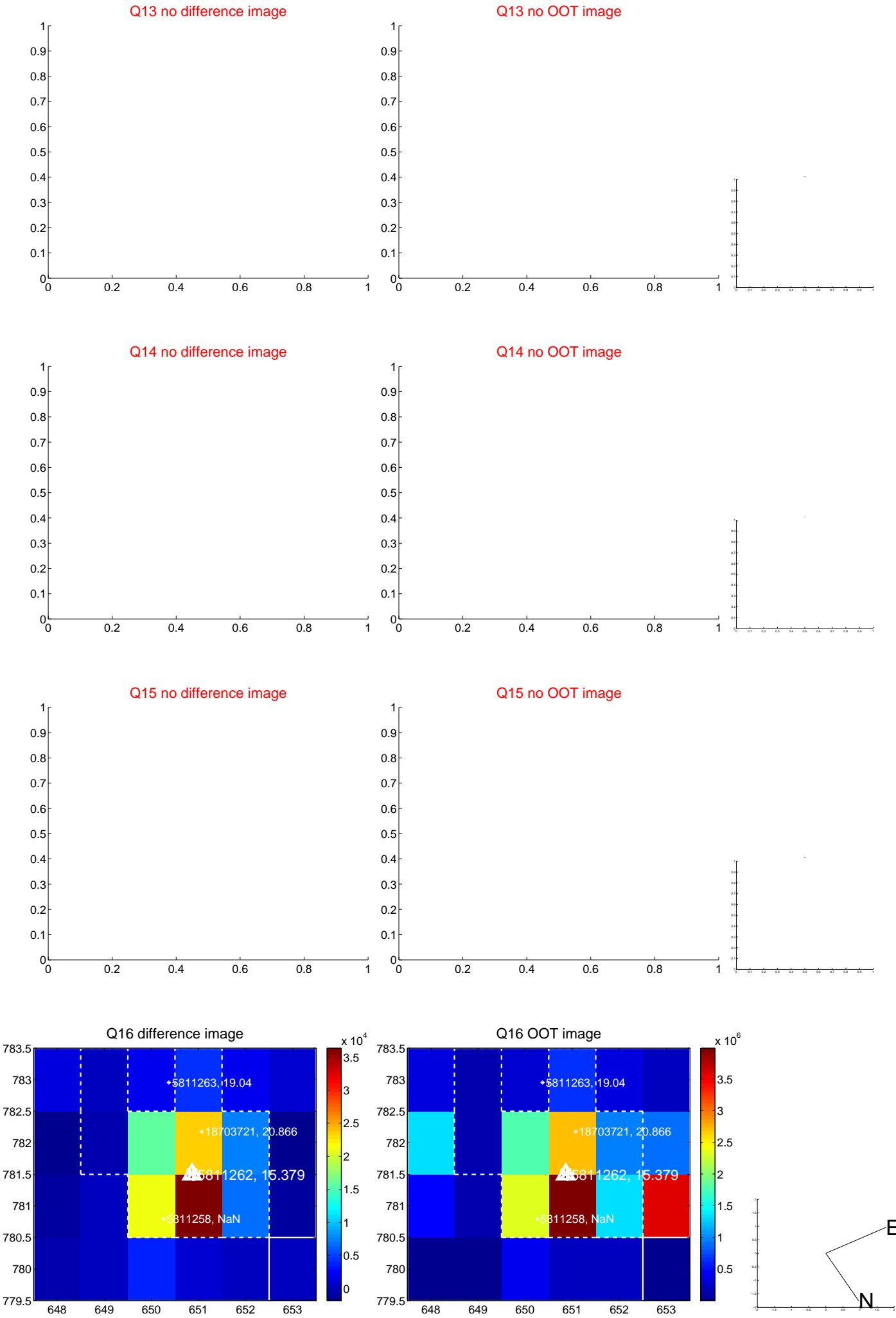
Q8 no OOT image



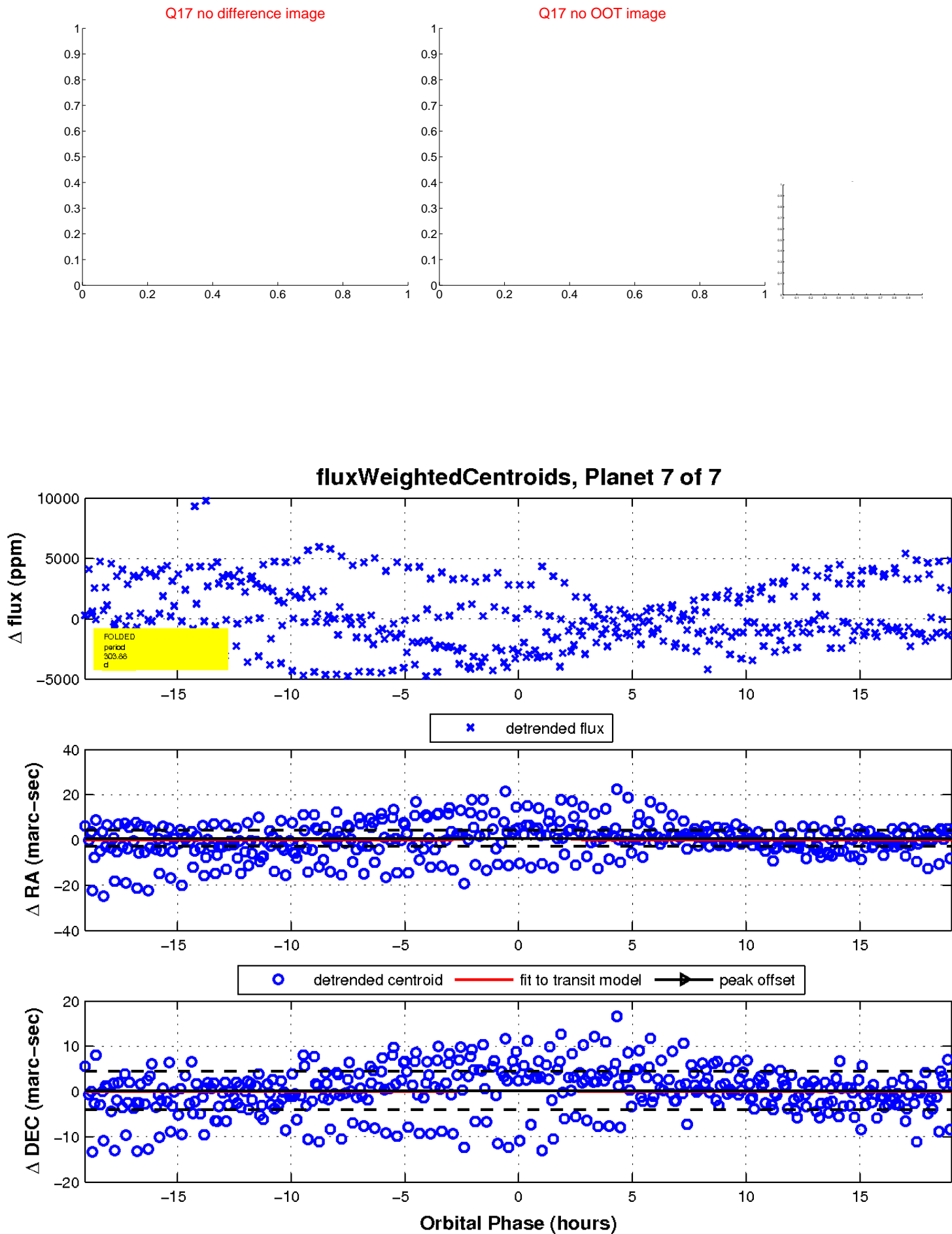
white ×: KIC target position; +: OOT centroid; △: difference centroid. red ✕: large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



white  $\times$ : KIC target position;  $+$ : OOT centroid;  $\triangle$ : difference centroid. red  $\times$ : large negative pixel value.



UKIRT Image

Declination

