

KIC 005459805

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})
005459805-01	OBS	No	0.532722	131.534498	149.2	2.034	9.2	8.0	1.47	6981	2.09	22441.32
005459805-02	OBS	No	0.532711	131.892444	197.1	2.000	9.8	6.7	1.47	6981	2.40	22441.92
005459805-03	OBS	No	0.615412	131.953026	1642.9	2.327	9.0	15.5	1.47	6981	6.94	18513.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005459805-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005459805-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD
005459805-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

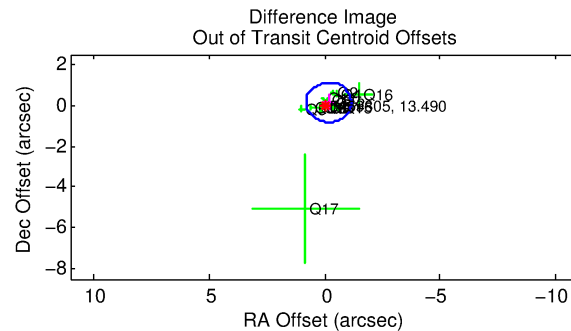
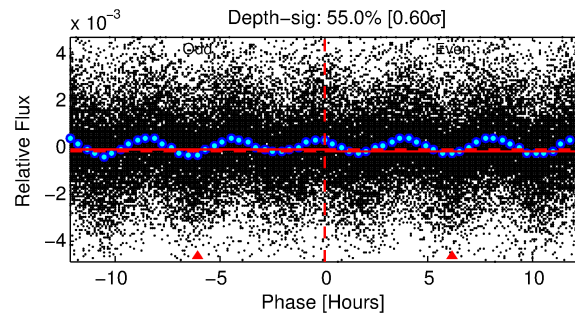
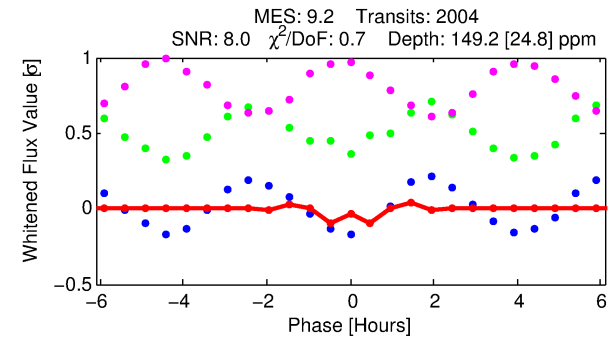
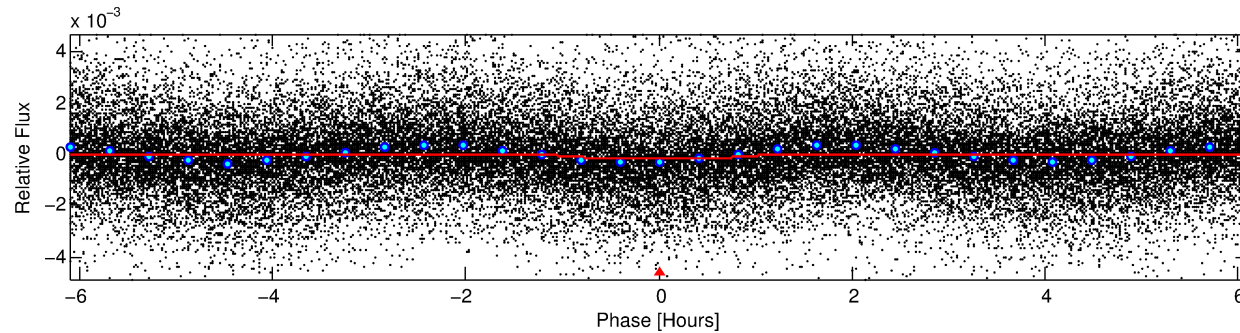
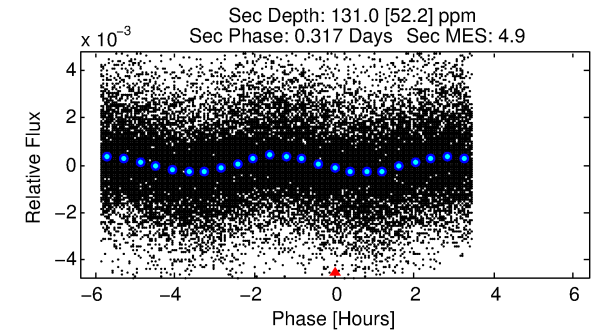
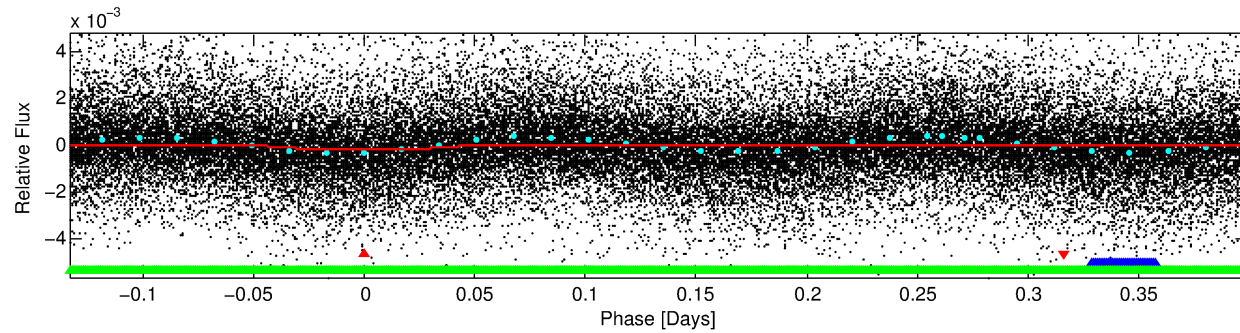
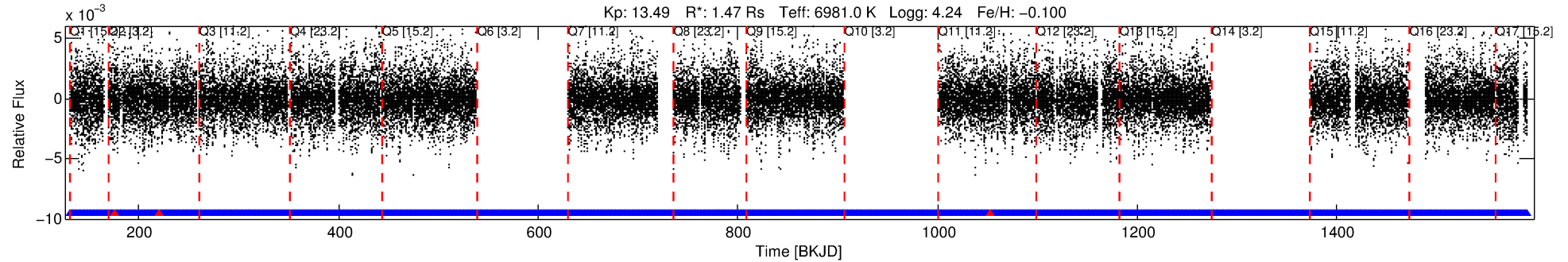
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005459805-01

No Significant Match Found

DV One-Page Summary

KIC: 5459805 Candidate: 1 of 3 Period: 0.533 d



DV Fit Results:

Period = 0.53272 [0.00001] d
Epoch = 131.5345 [0.0011] BKJD
Rp/R* = 0.0130 [0.0028]
a/R* = 1.33 [0.66]
b = 0.90 [0.25]
Seff = 22441.32 [9356.16]
Teq = 3121 [325] K
Rp = 2.09 [0.83] Re
a = 0.0143 [0.0039] AU
Ag = 3.39 [2.38] [1.00σ]
Teffp = 6545 [1006] K [3.24σ]

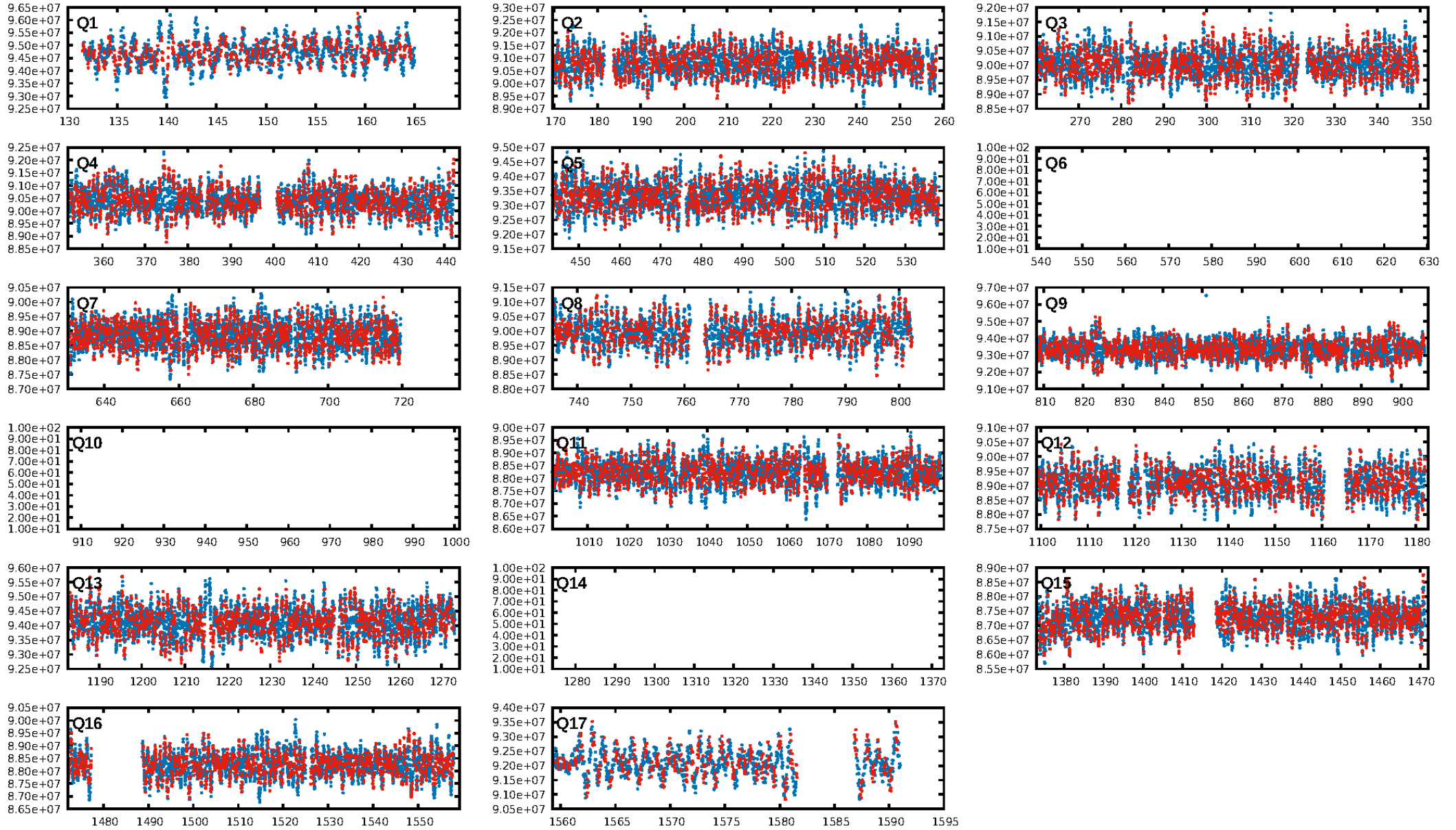
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00σ]
LongPeriod-sig: 47.9% [0.64σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1887/1890]
GhostDiagnostic-chr: 1.201
Centroid-sig: 1.0%
Centroid-so: 0.210 arcsec [1.37σ]
OotOffset-rm: 0.224 arcsec [0.69σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-rm: 0.163 arcsec [0.48σ]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 0.93 [13/14]
DiffImageOverlap-fno: 0.00 [0/14]

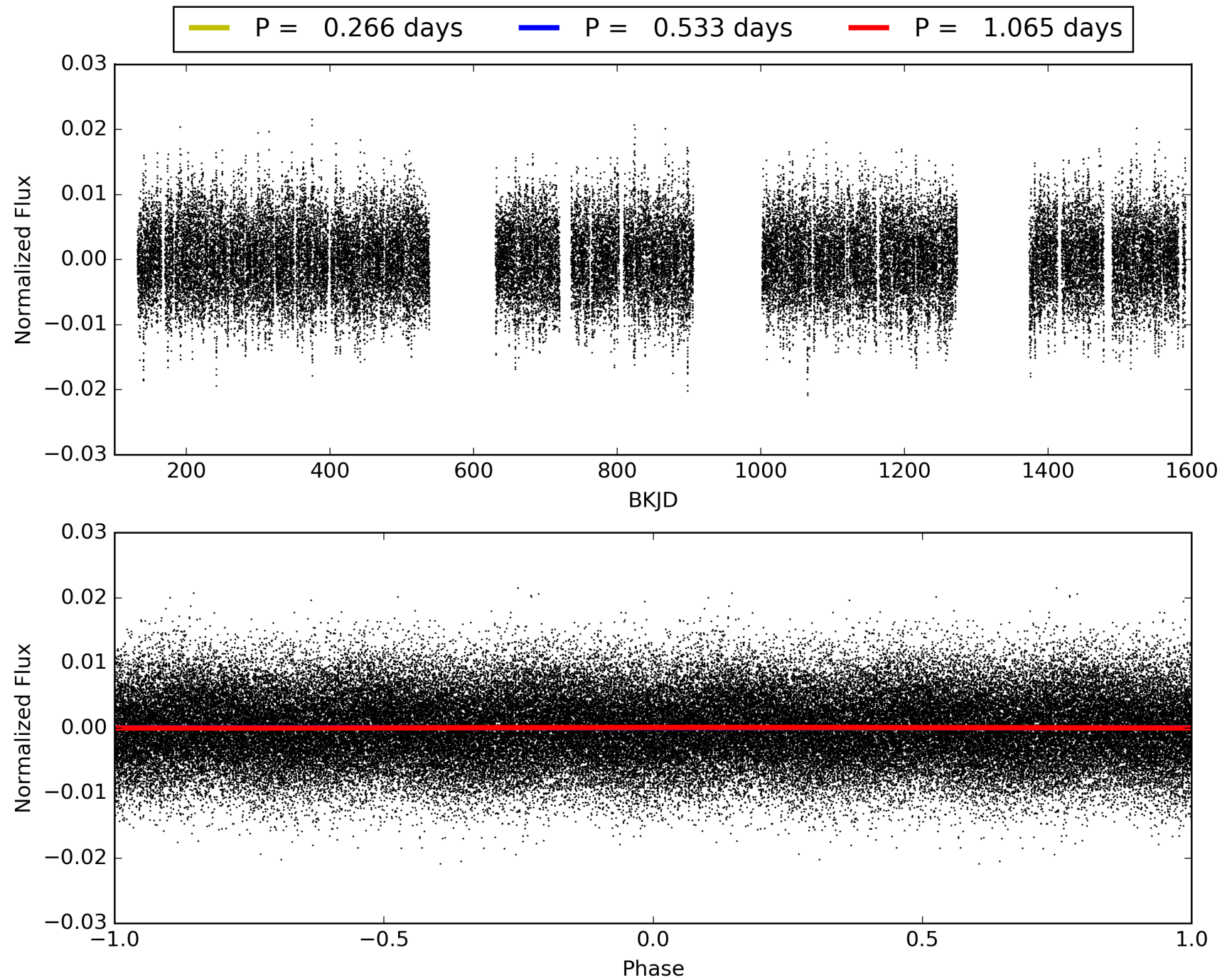
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:33:33 Z

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

TCE 005459805-01, PDC Light Curves

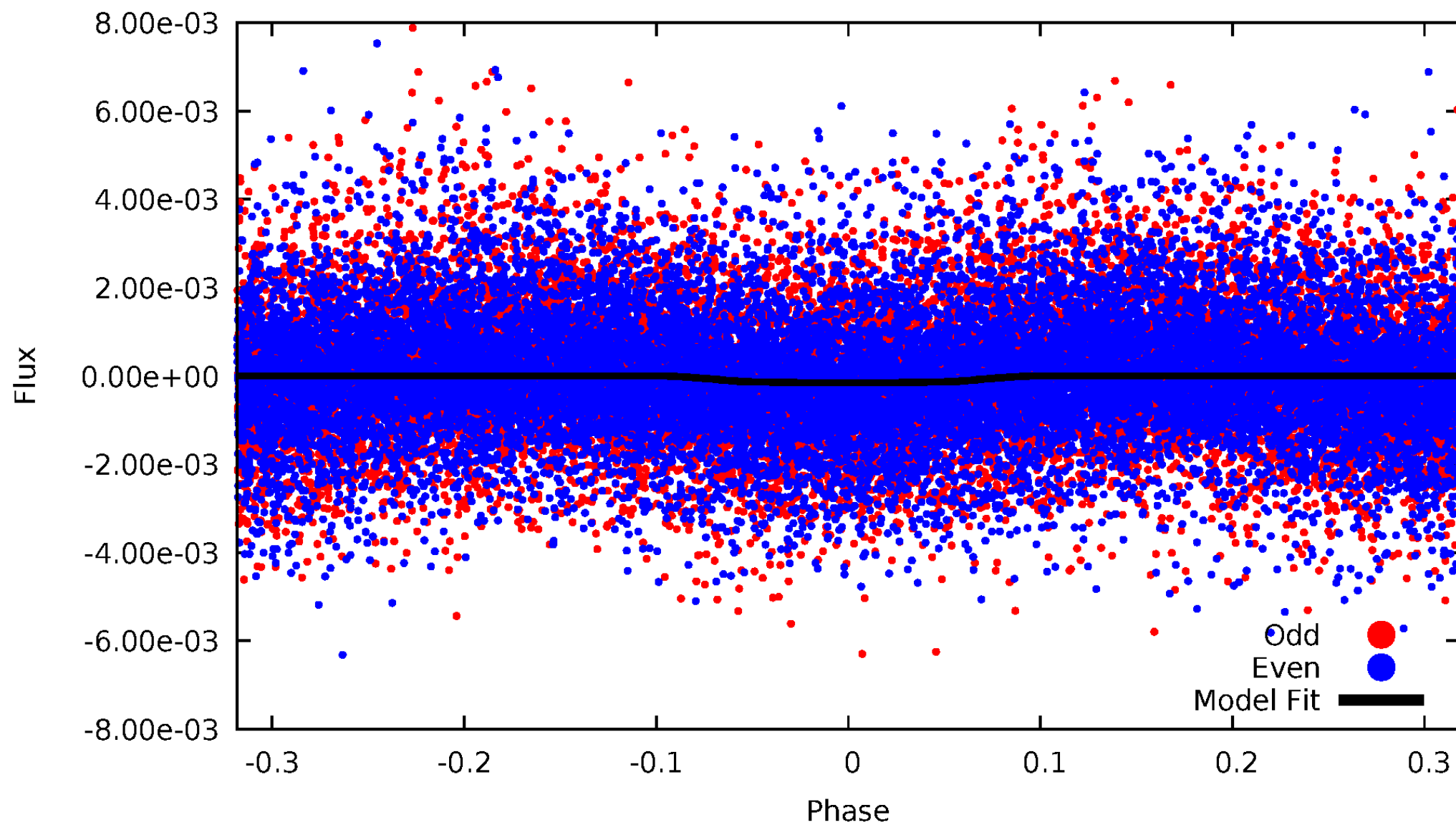


TCE 005459805-01



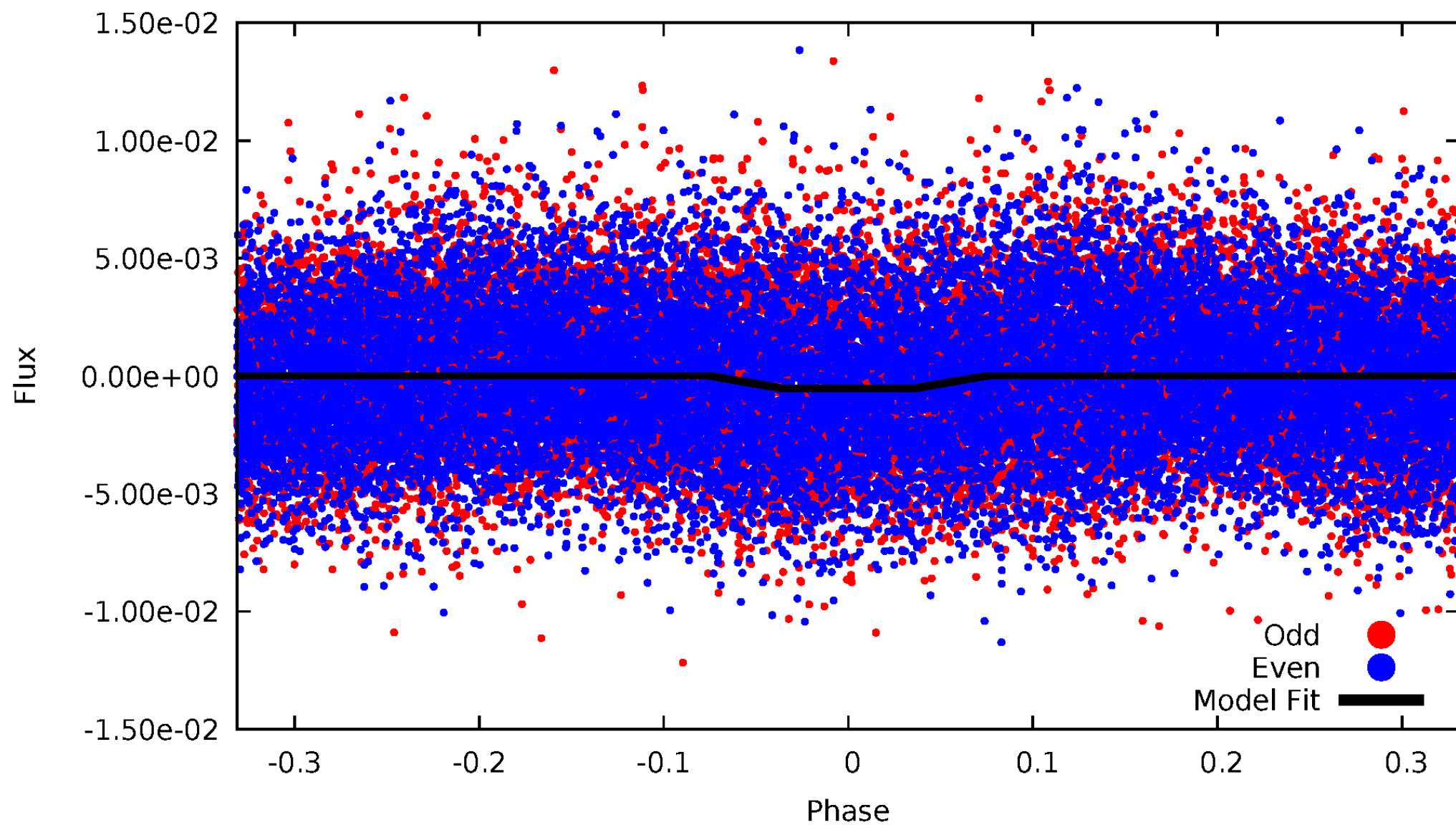
DV Odd/Even

TCE 005459805-01



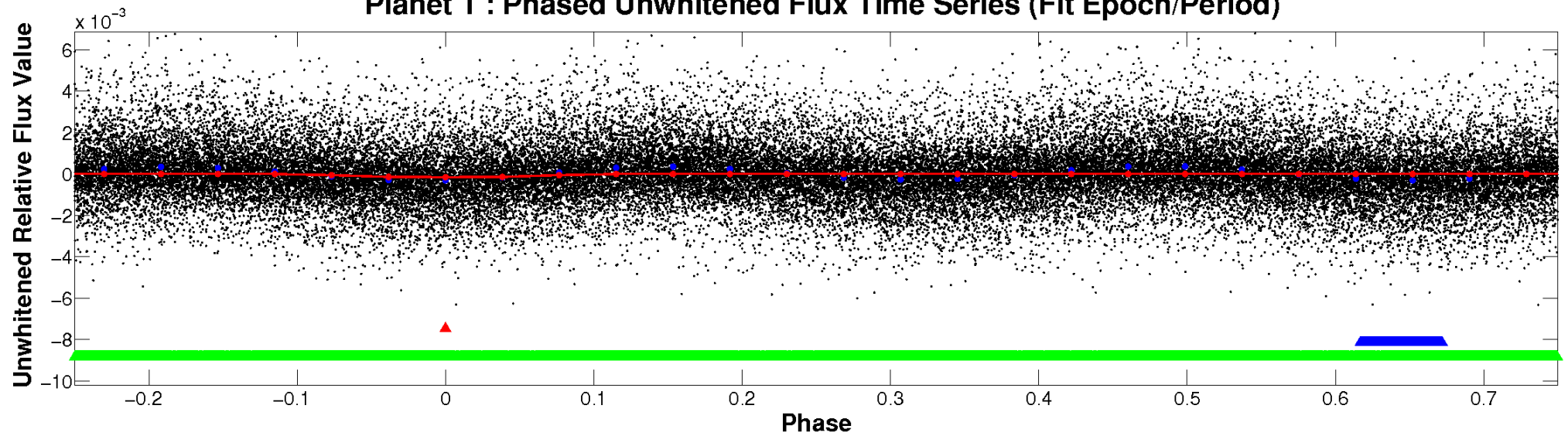
ALT Odd/Even

TCE 005459805-01

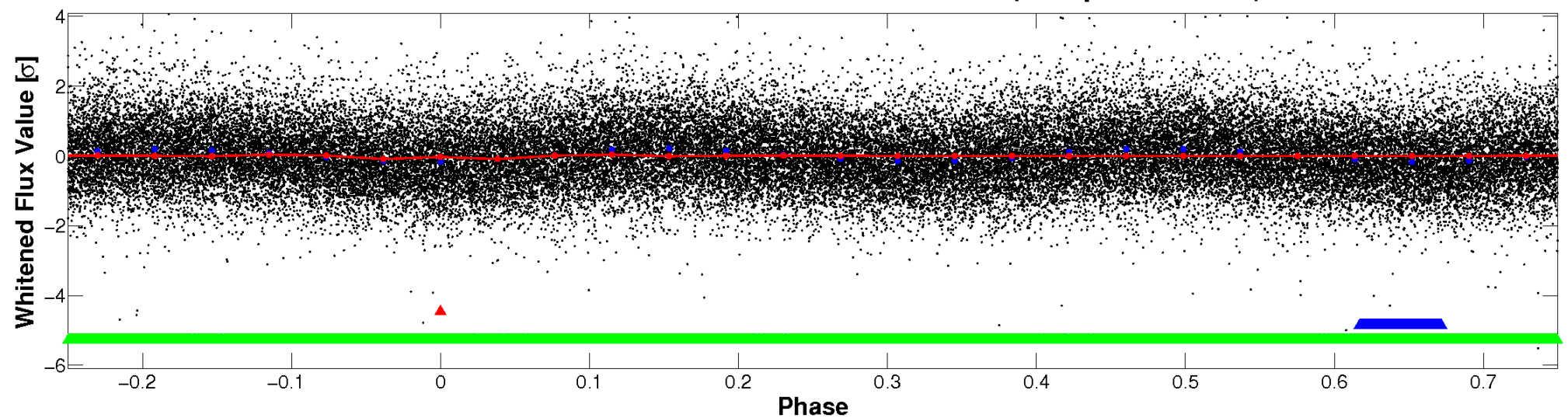


Non-Whitened Vs. Whitened Light Curve

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

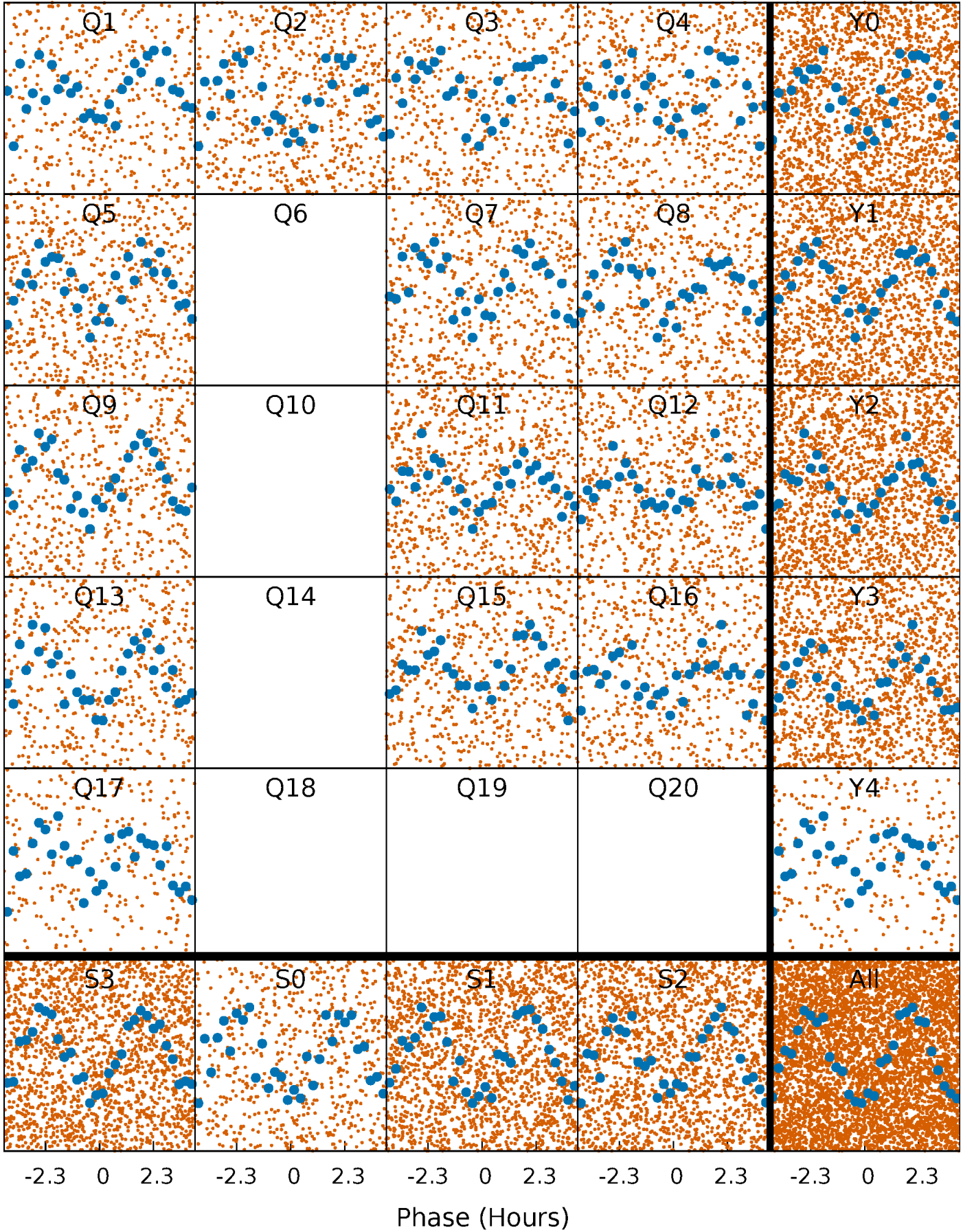


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



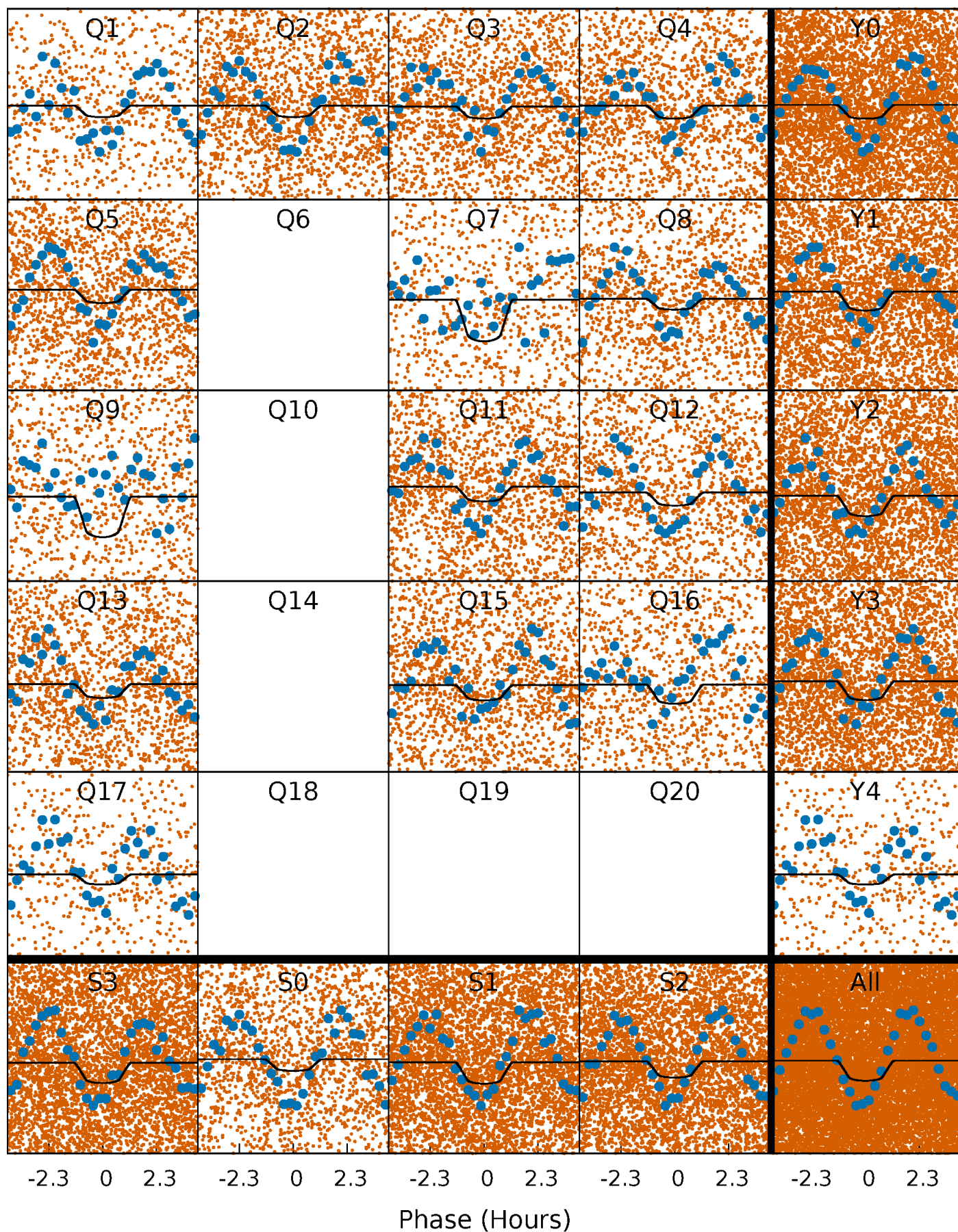
PDC Quarter-Phased Transit Curves

TCE 005459805-01 P= 0.532722 Days $T_0=131.534498$ (BKJD)



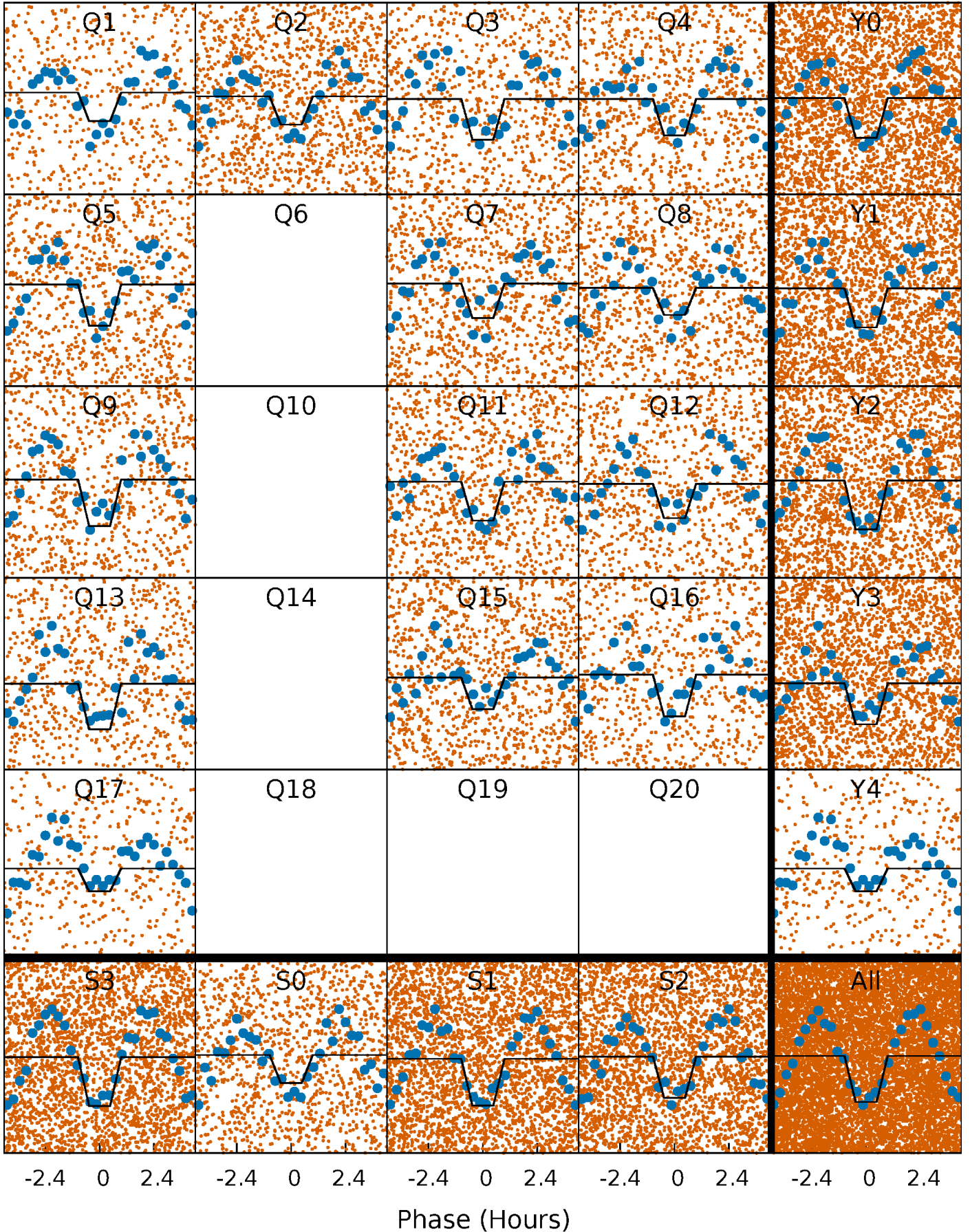
DV Quarter-Phased Transit Curves

TCE 005459805-01 P= 0.532722 Days $T_0=131.534498$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

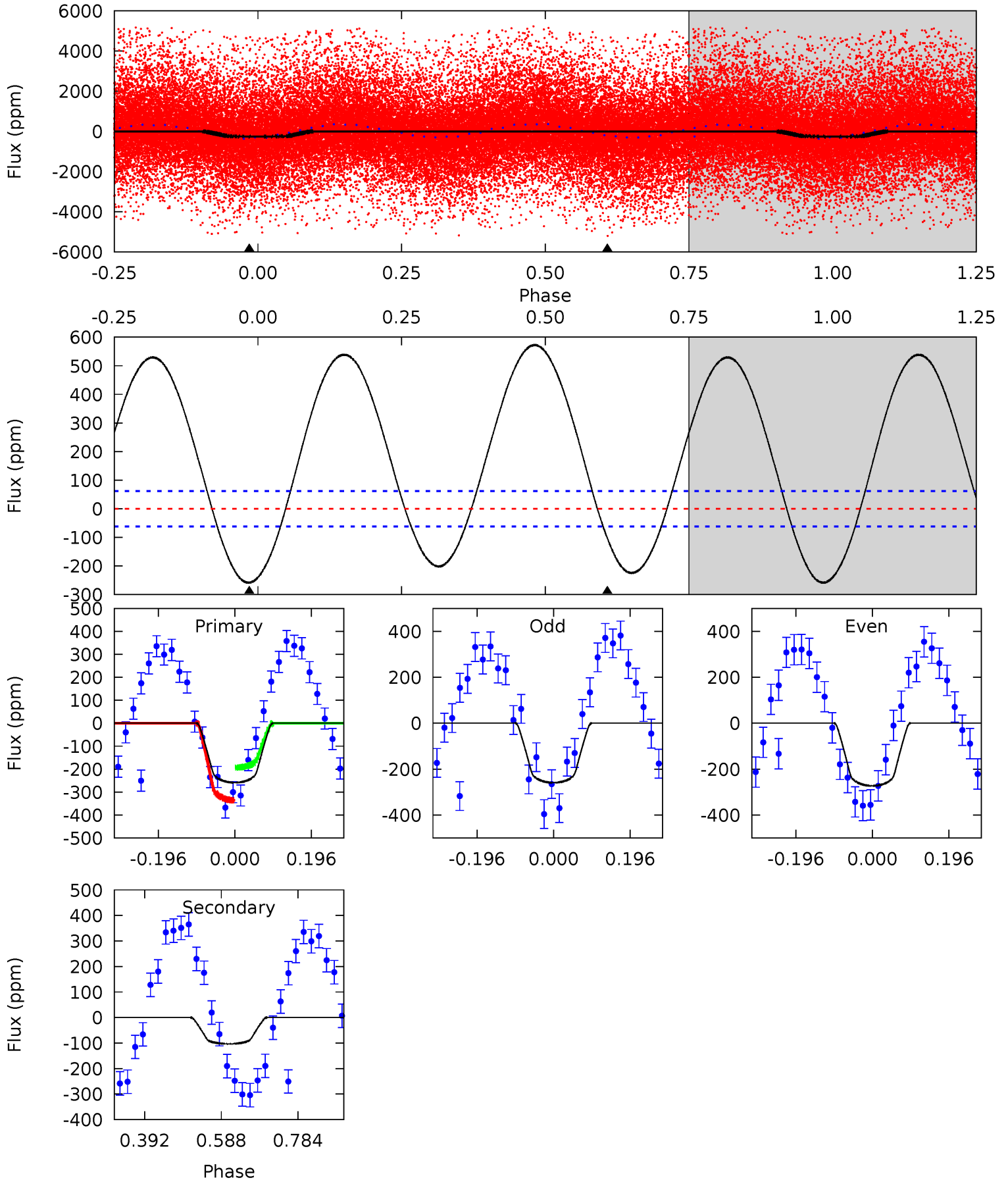
TCE 005459805-01 P= 0.532717 Days $T_0=131.531842$ (BKJD)



DV Model-Shift Uniqueness Test

005459805-01, P = 0.532722 Days, E = 131.001776 Days

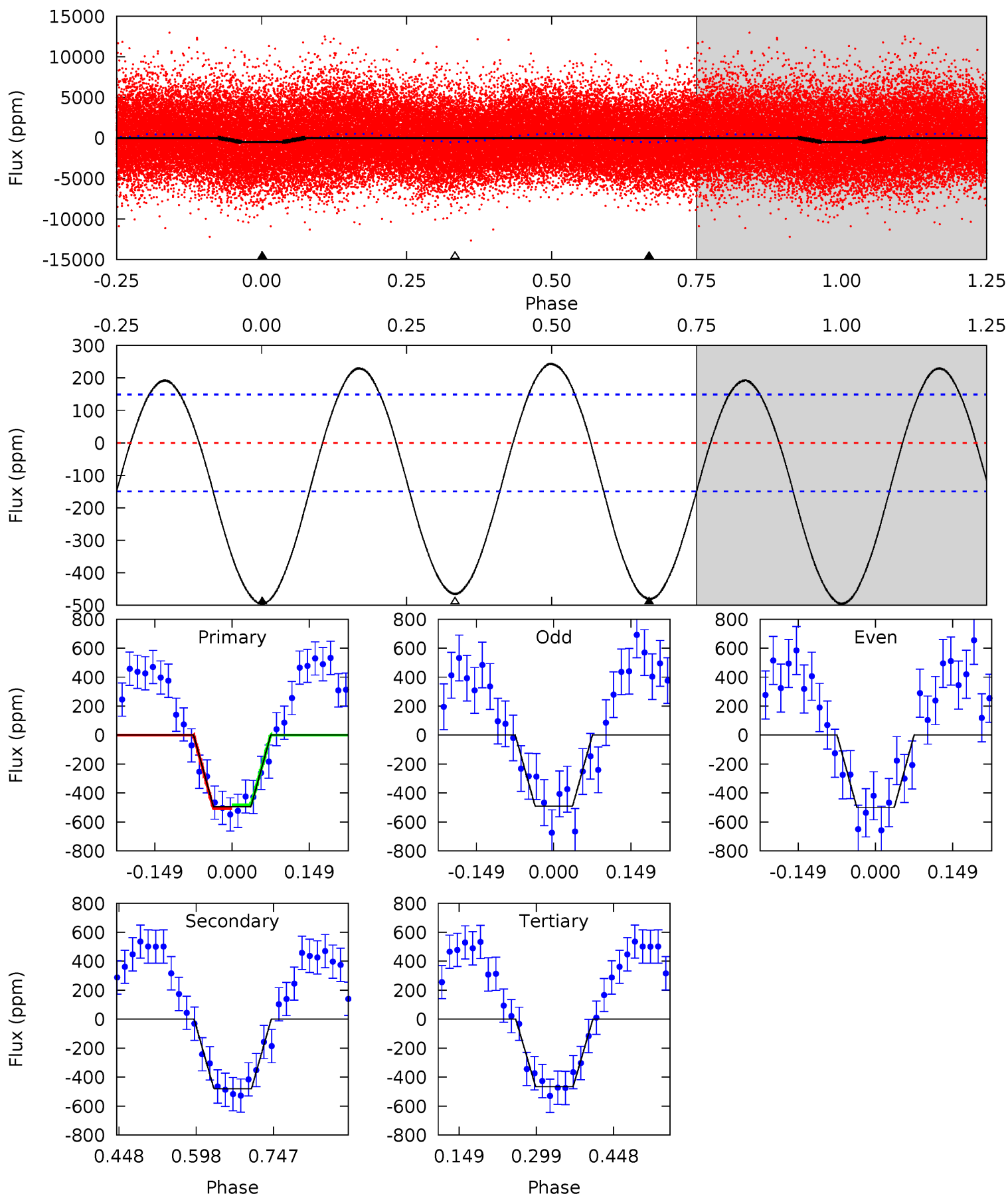
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
18.4	7.34	0	0	4.42	1.29	14.3	18.4	18.4	7.34	7.34	0.48	0.90	0.69	5.04



Alt Model-Shift Uniqueness Test

005459805-01, P = 0.532717 Days, E = 130.999125 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
14.9	14.4	14.0	0	4.48	1.44	7.69	0.90	14.9	0.46	14.4	0.14	0.87	0.33	0.37



Stellar Parameters For KIC 005459805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6981^{+194}_{-291}	$4.242^{+0.101}_{-0.203}$	$-0.100^{+0.250}_{-0.350}$	$1.468^{+0.487}_{-0.225}$	$1.378^{+0.202}_{-0.222}$	$0.614^{+0.290}_{-0.311}$
	+3%/-4%	+2%/-5%	+250%/-350%	+33%/-15%	+15%/-16%	+47%/-51%
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 005459805-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-103 ± 14	$2.12^{+0.63}_{-0.49}$	4407^{+334}_{-270}	5852^{+934}_{-605}	$2.449^{+1.944}_{-0.920}$
Alt.	-481 ± 33	$3.75^{+0.76}_{-0.60}$	4399^{+336}_{-260}	6644^{+608}_{-548}	$3.779^{+1.495}_{-1.089}$

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 $A_{obs} \gg 1.0$

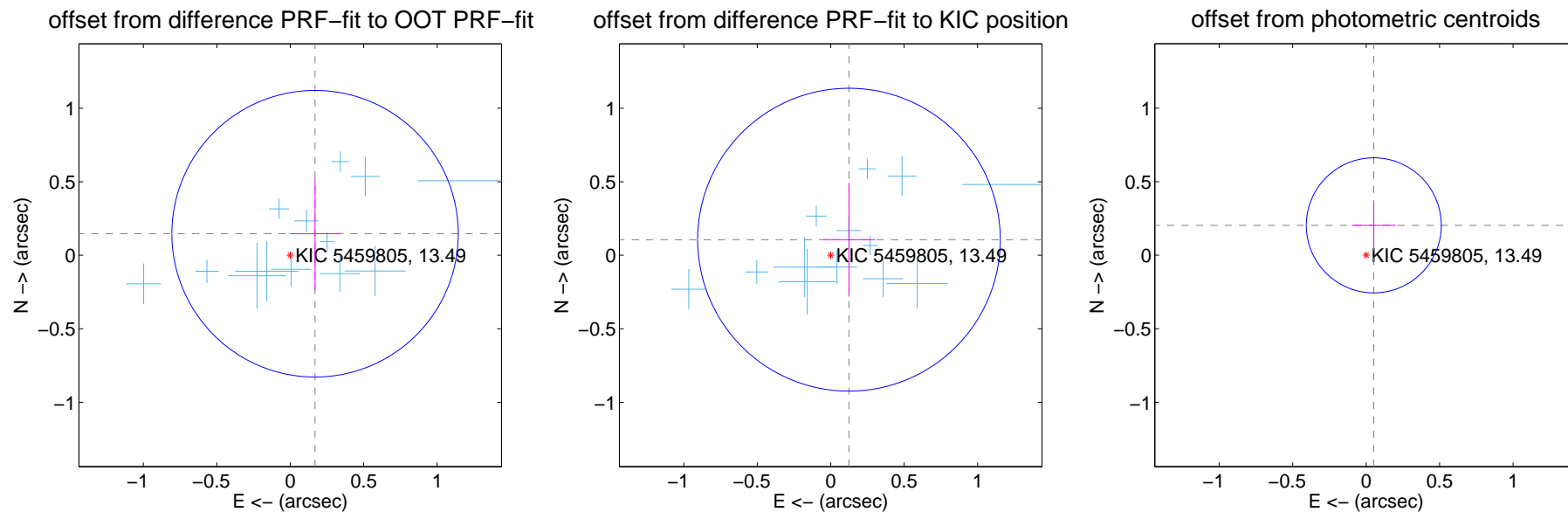
DV Centroid Data

Supplemental centroid analysis for 005459805-01. Kepler magnitude: 13.49. Transit SNR 7.95

There are 13 quarters with good PRF difference image offsets

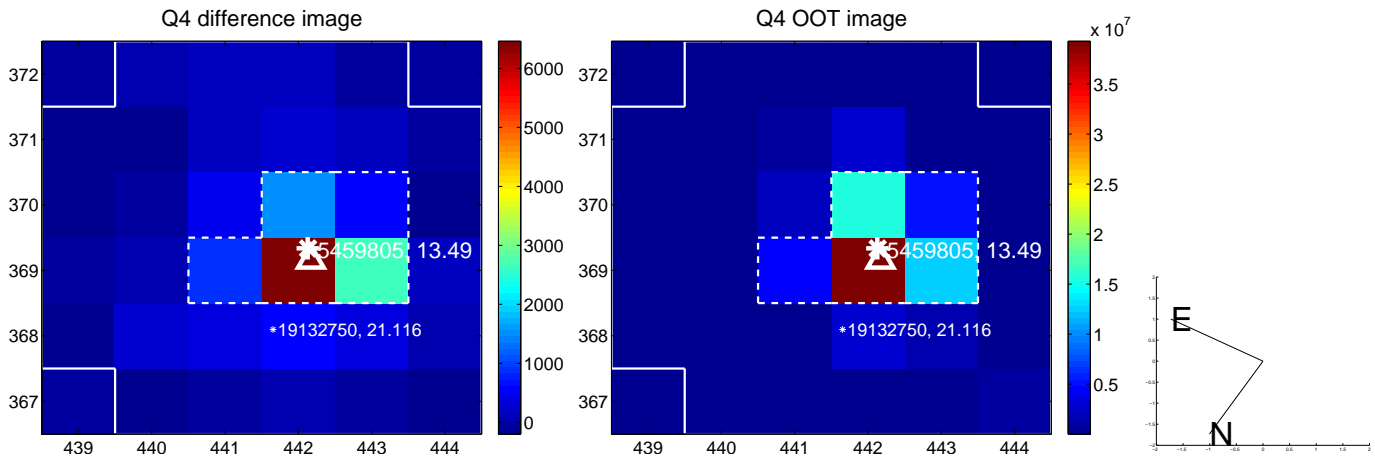
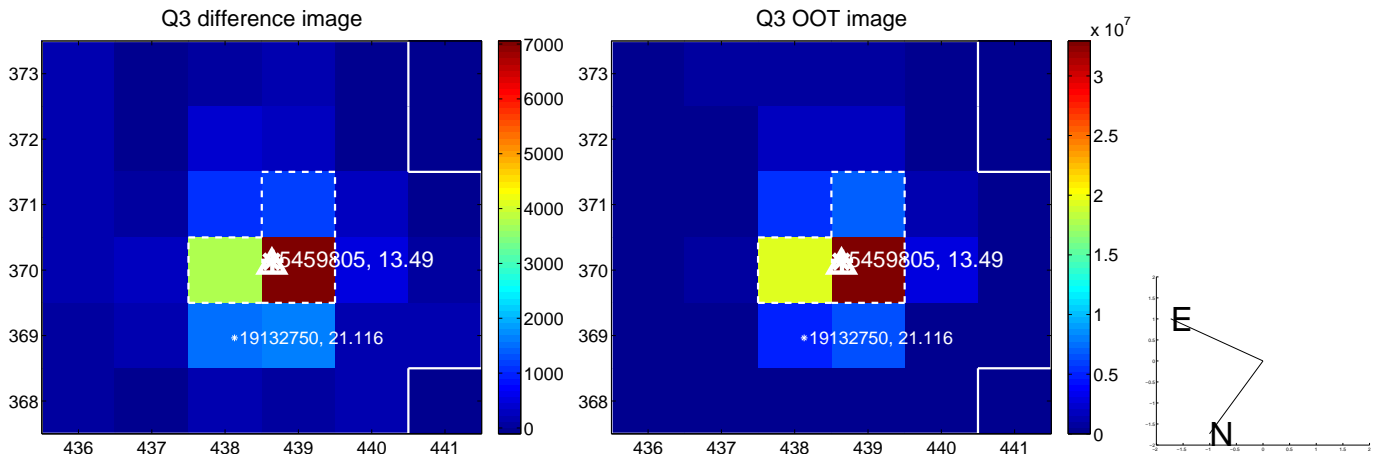
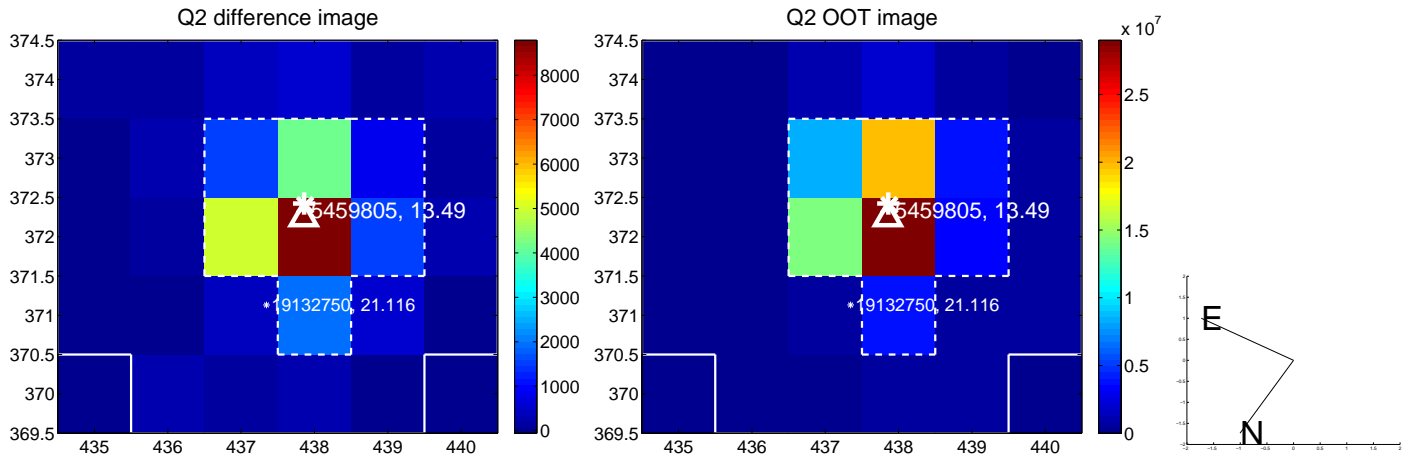
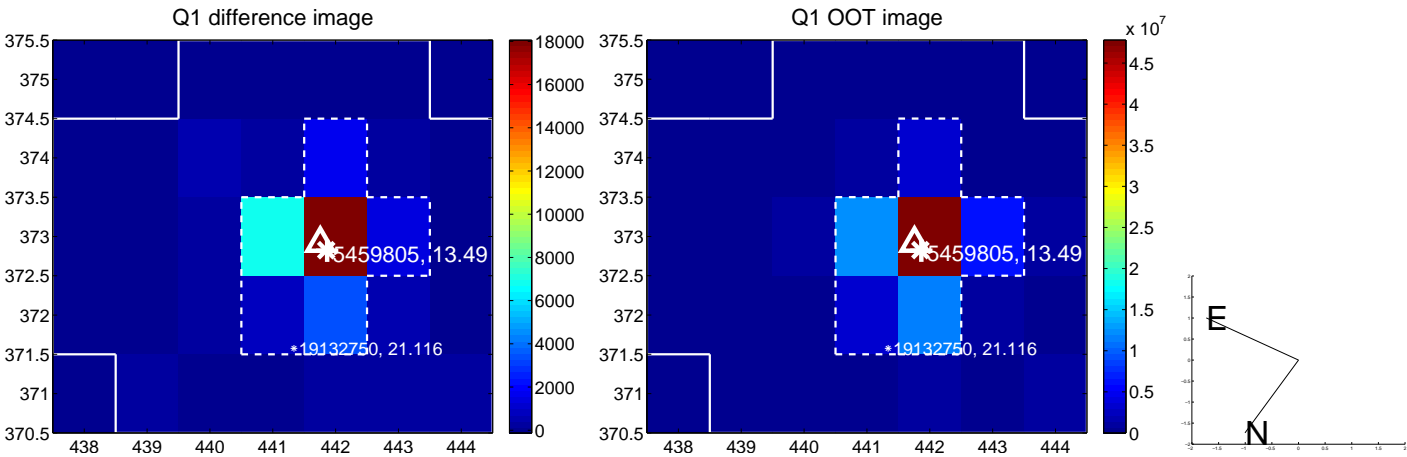
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.224 ± 0.325	0.69	-0.169 ± 0.170	0.147 ± 0.380
PRF-fit source offset from KIC position	0.163 ± 0.343	0.48	-0.124 ± 0.178	0.106 ± 0.387
photometric centroid source offset	0.21 ± 0.15	1.37	-0.05 ± 0.15	0.20 ± 0.15

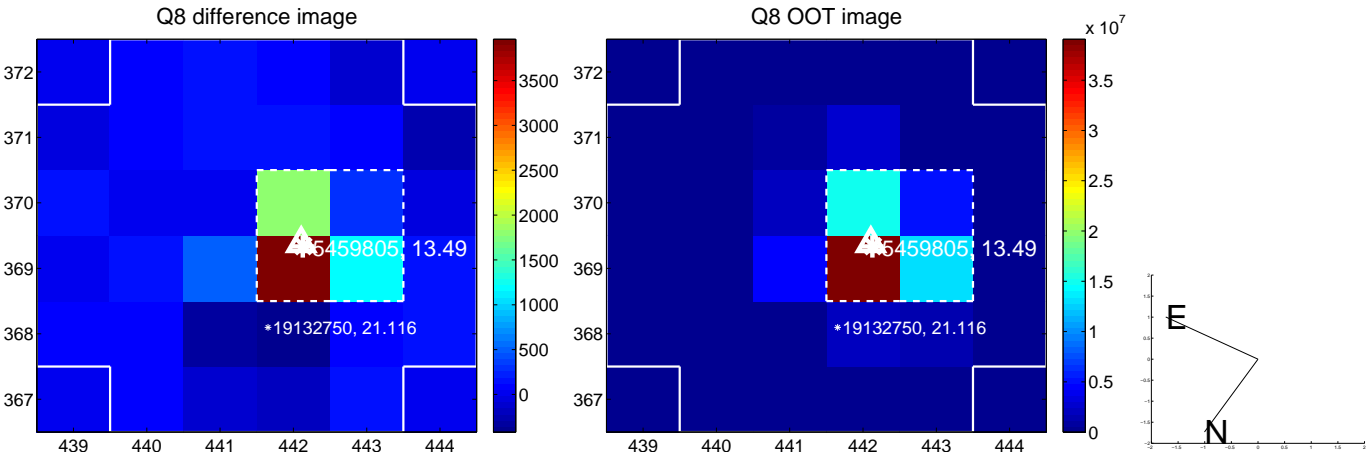
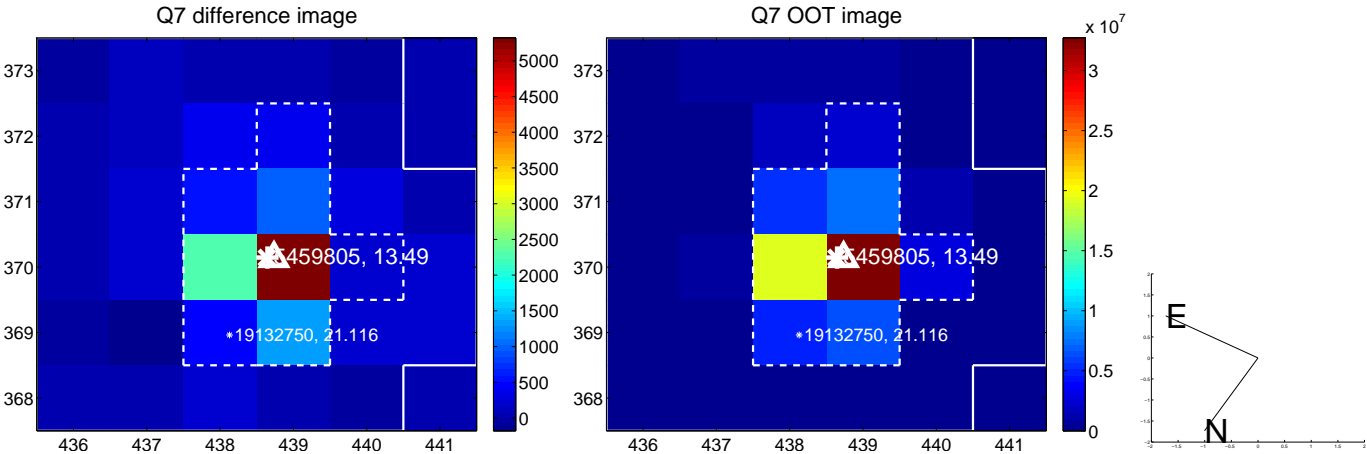
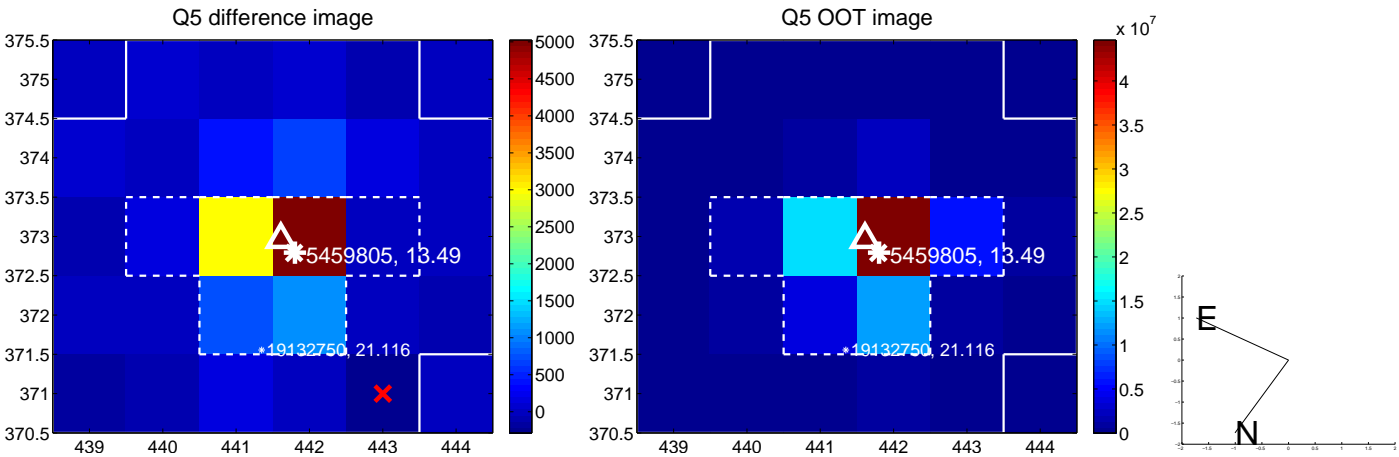


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

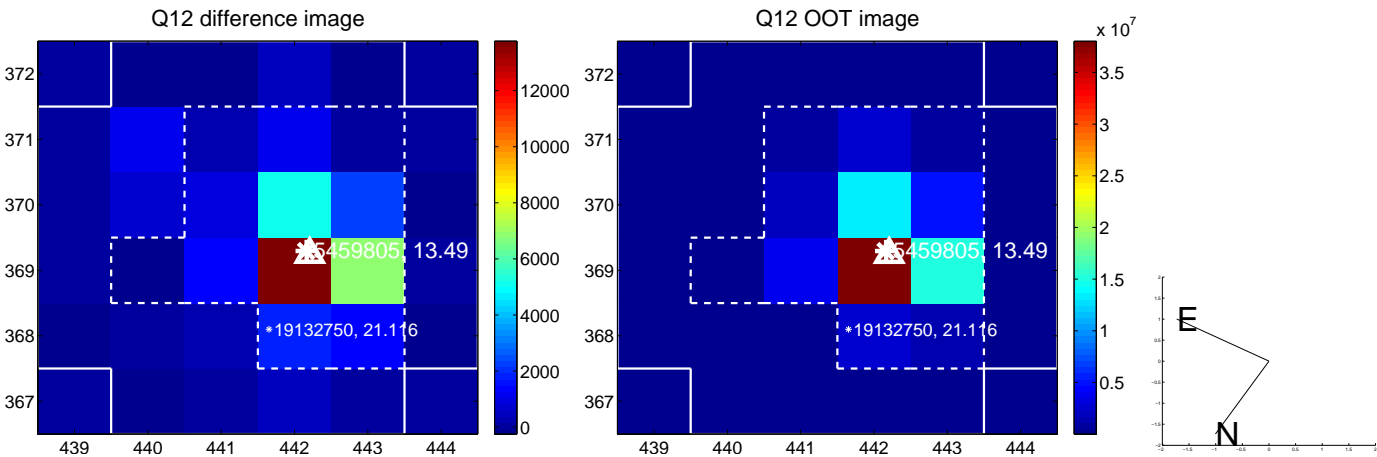
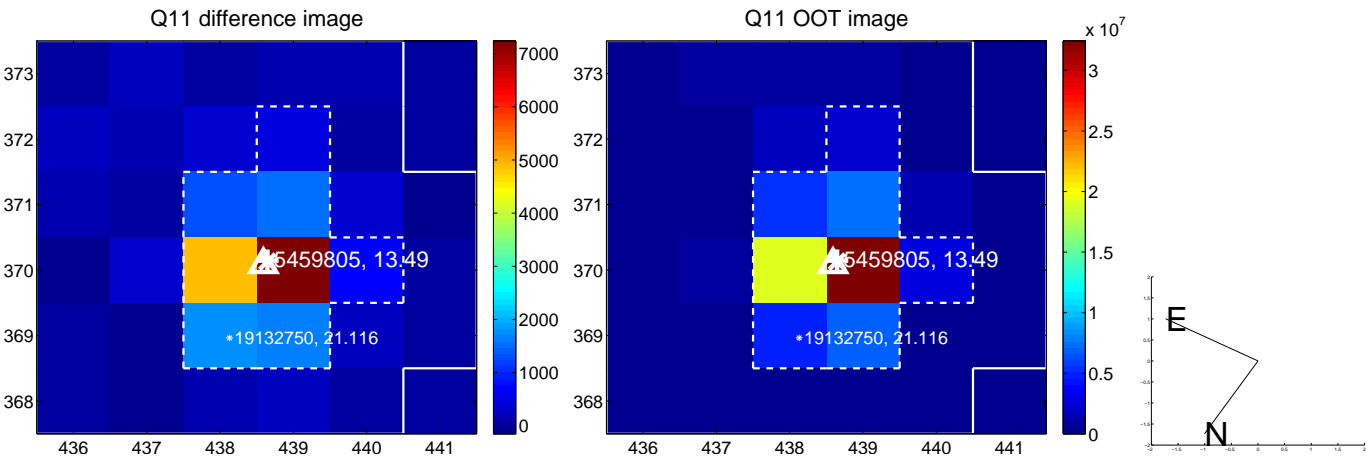
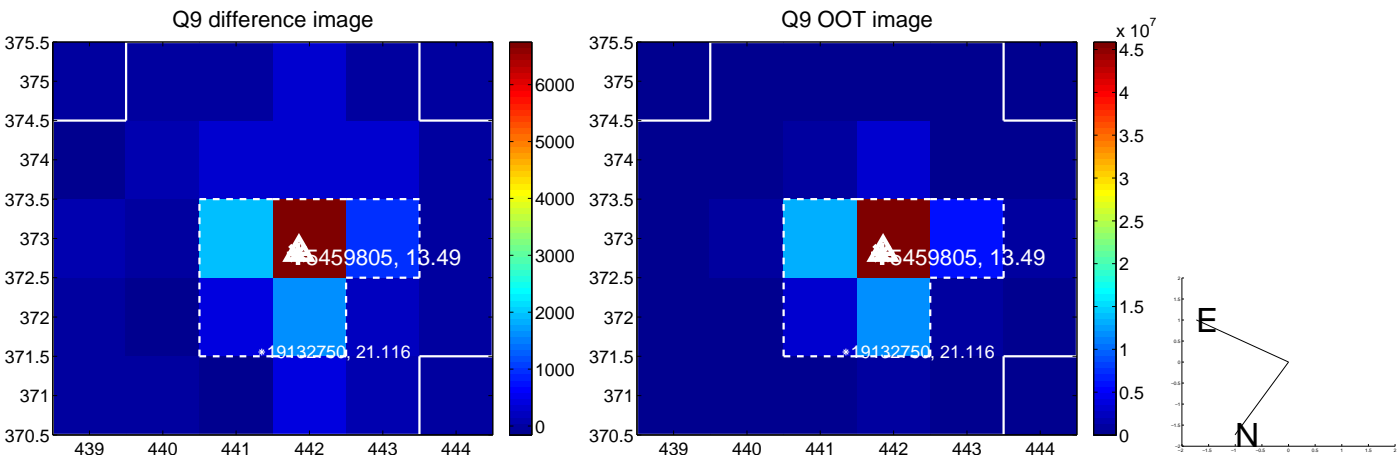
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



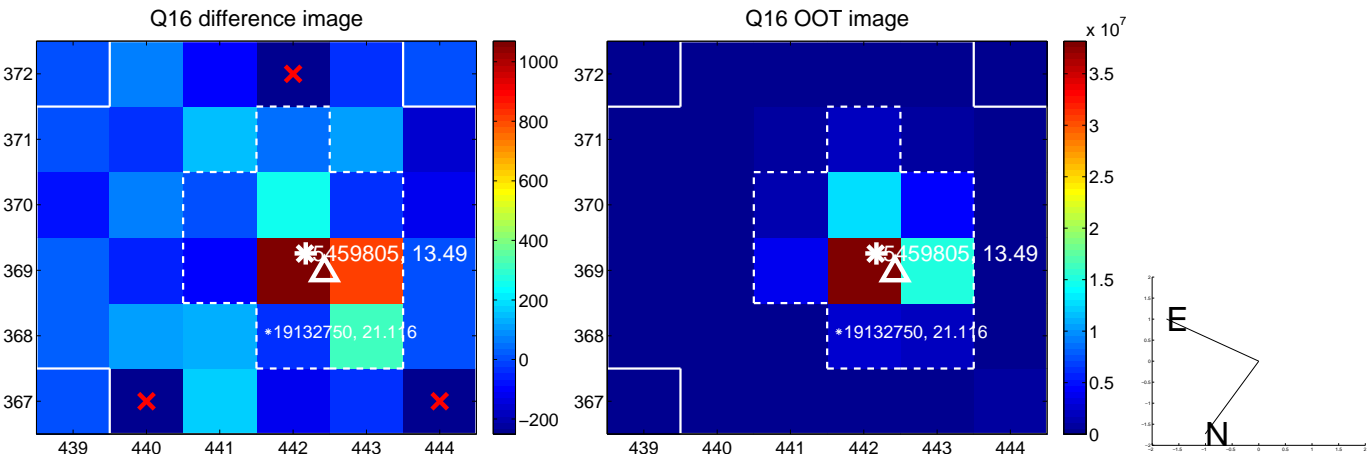
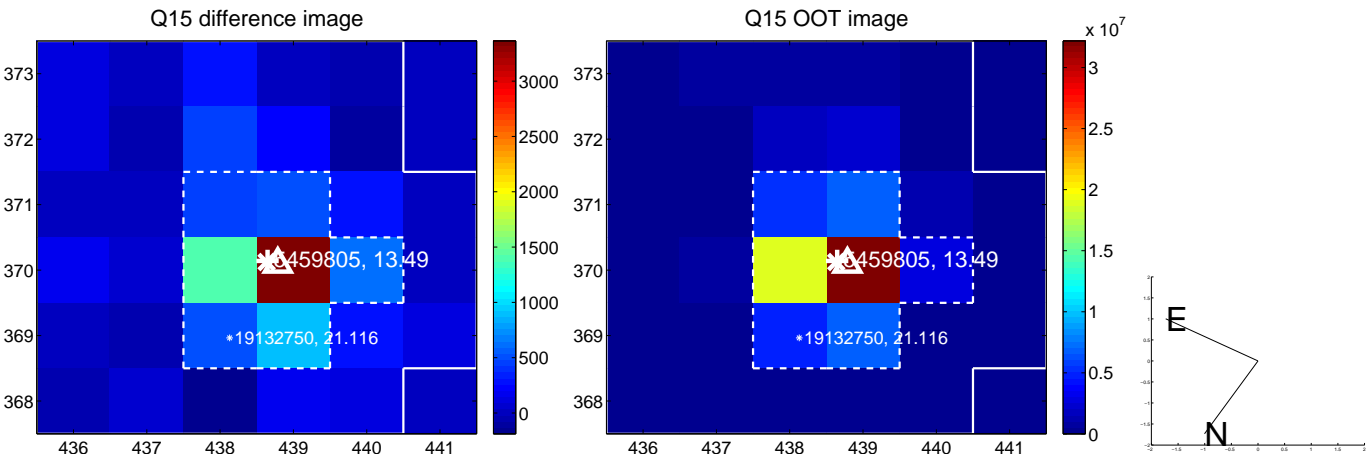
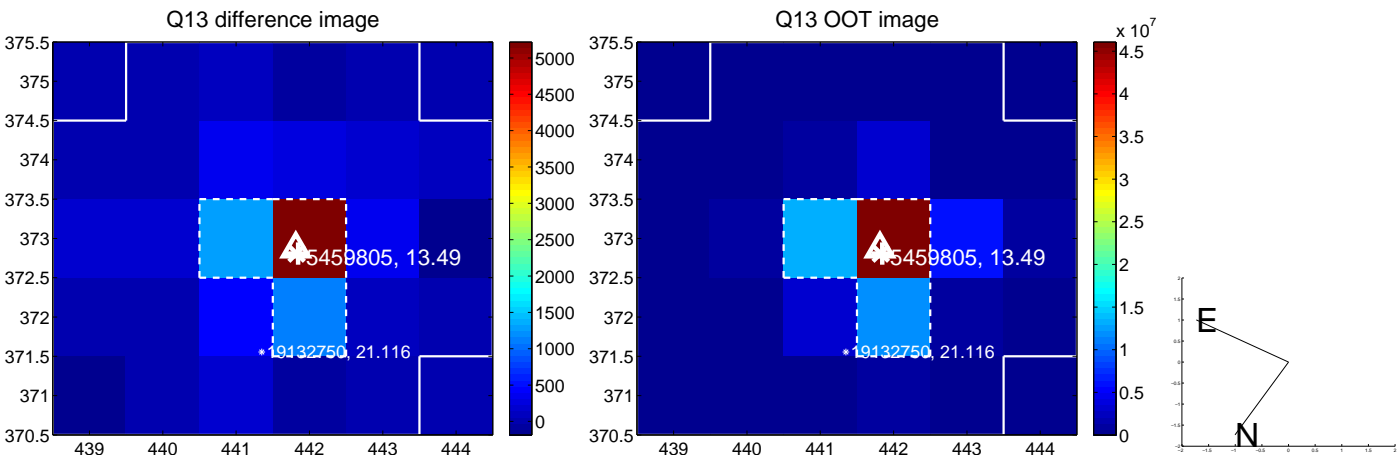
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



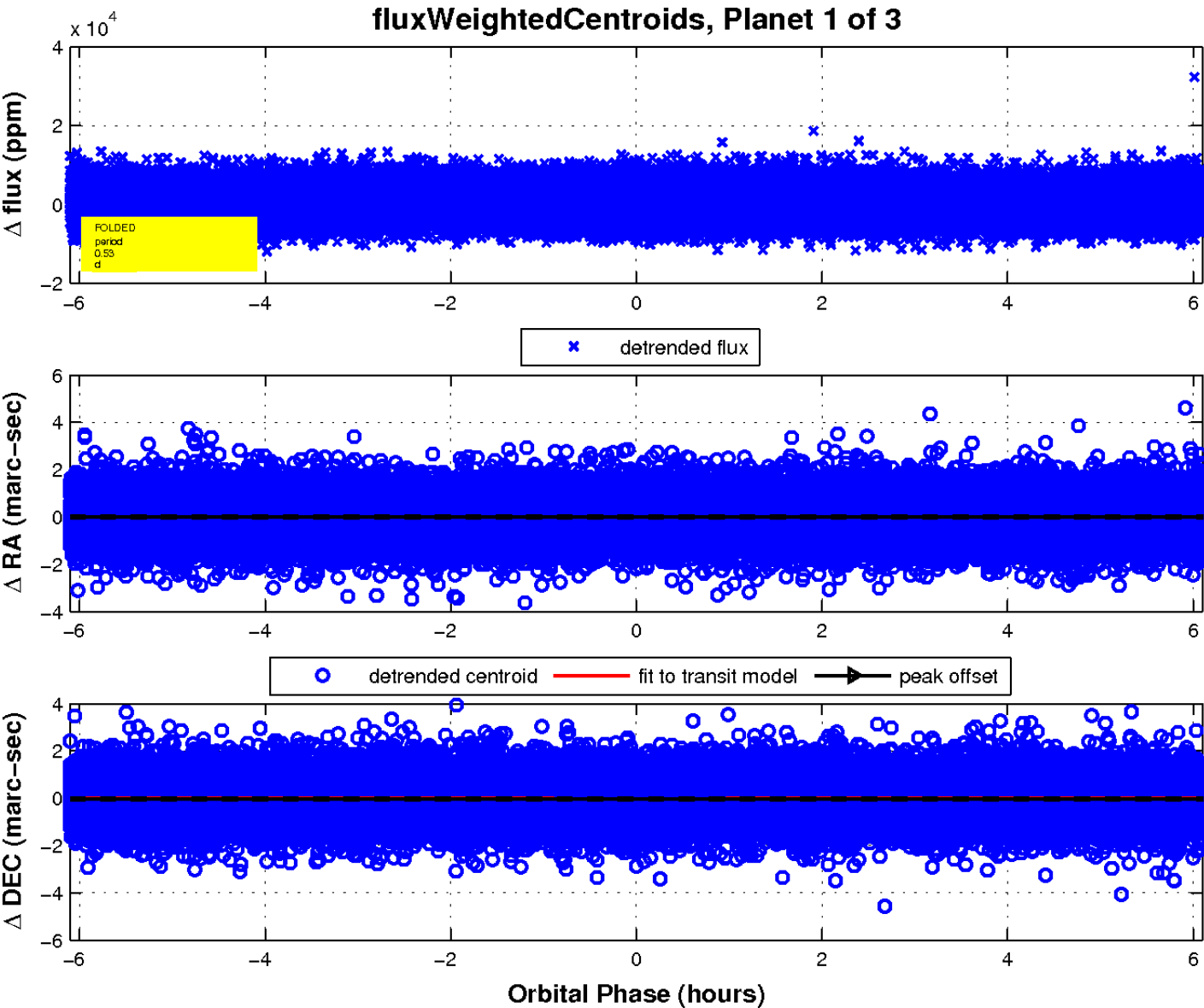
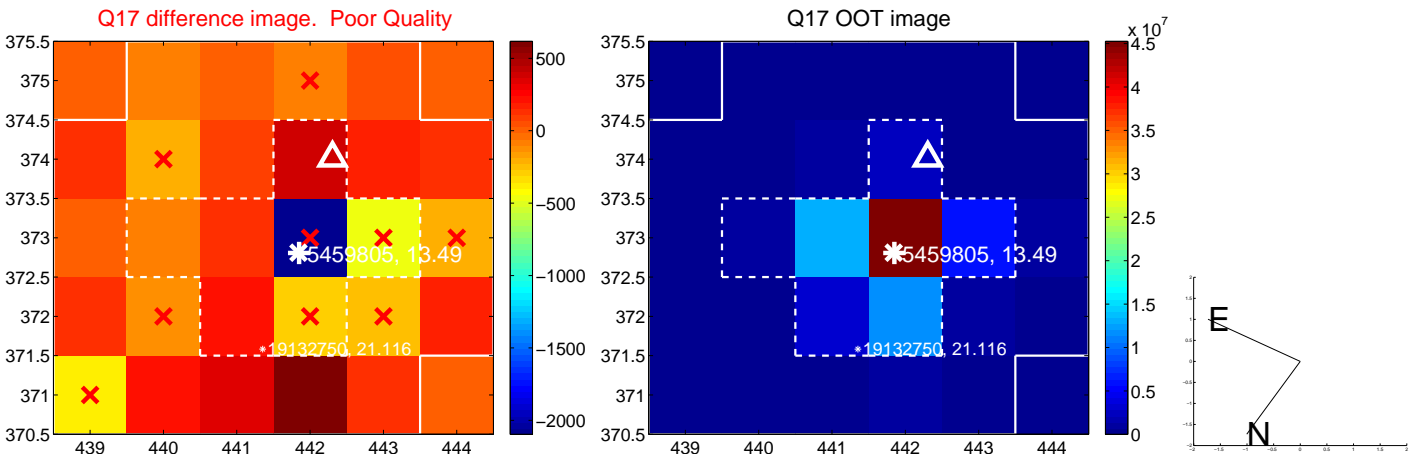
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

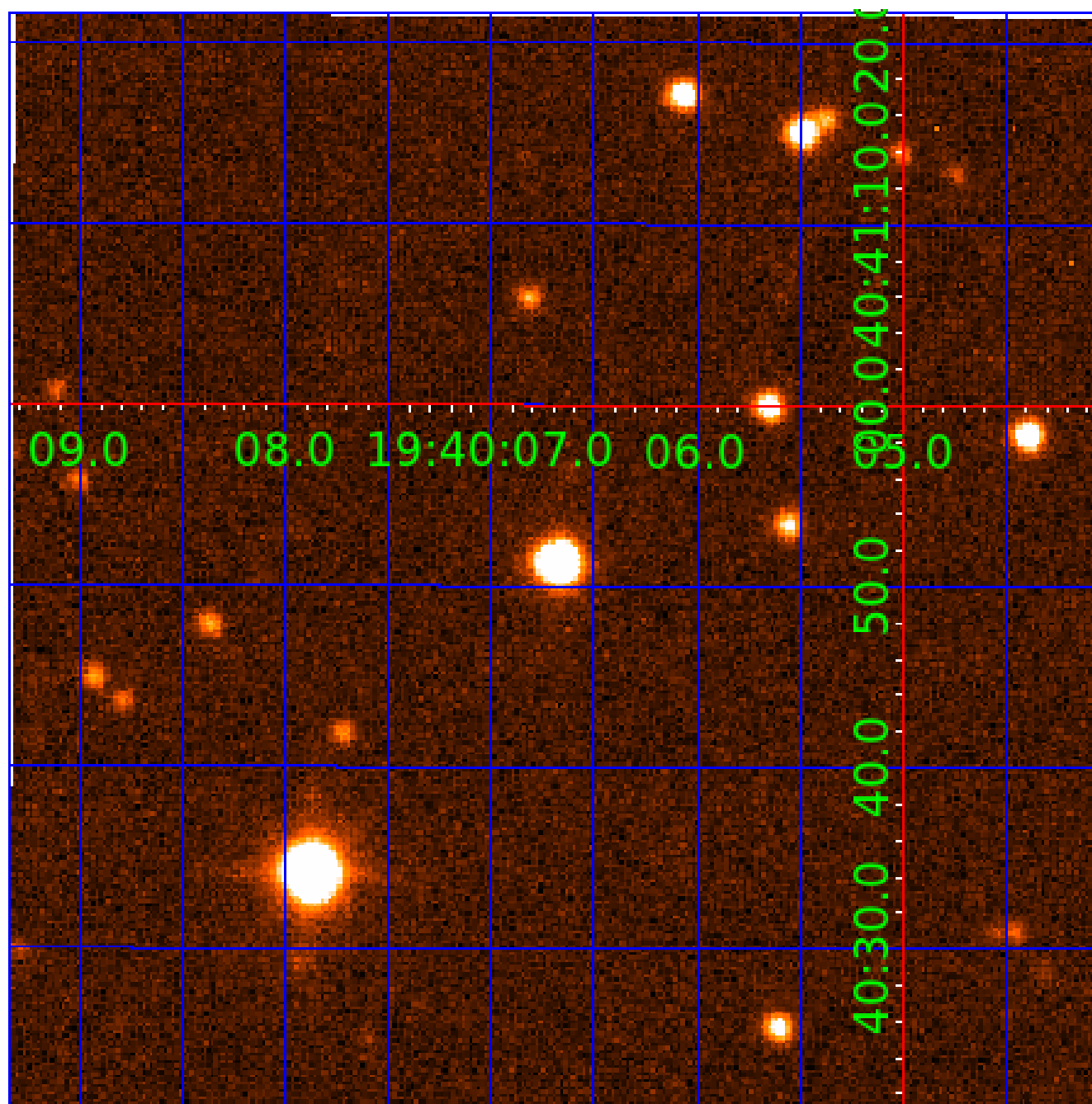


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005459805

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})
005459805-01	OBS	No	0.532722	131.534498	149.2	2.034	9.2	8.0	1.47	6981	2.09	22441.32
005459805-02	OBS	No	0.532711	131.892444	197.1	2.000	9.8	6.7	1.47	6981	2.40	22441.92
005459805-03	OBS	No	0.615412	131.953026	1642.9	2.327	9.0	15.5	1.47	6981	6.94	18513.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005459805-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005459805-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD
005459805-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

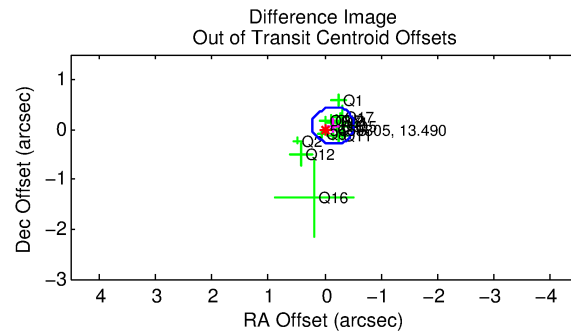
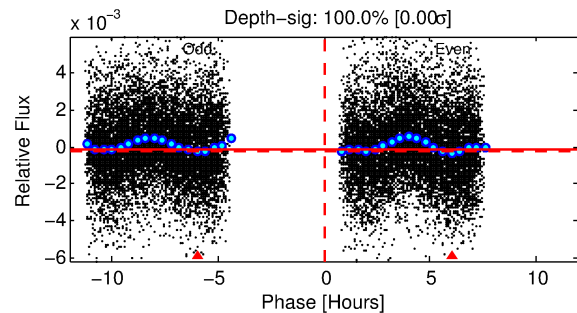
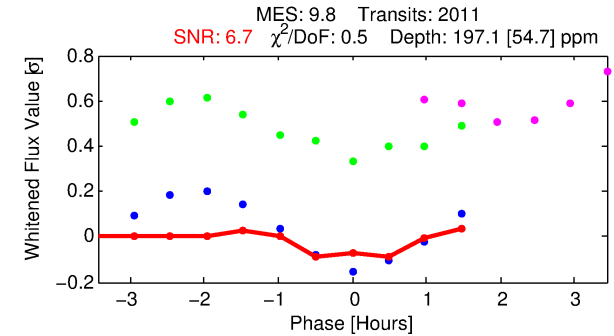
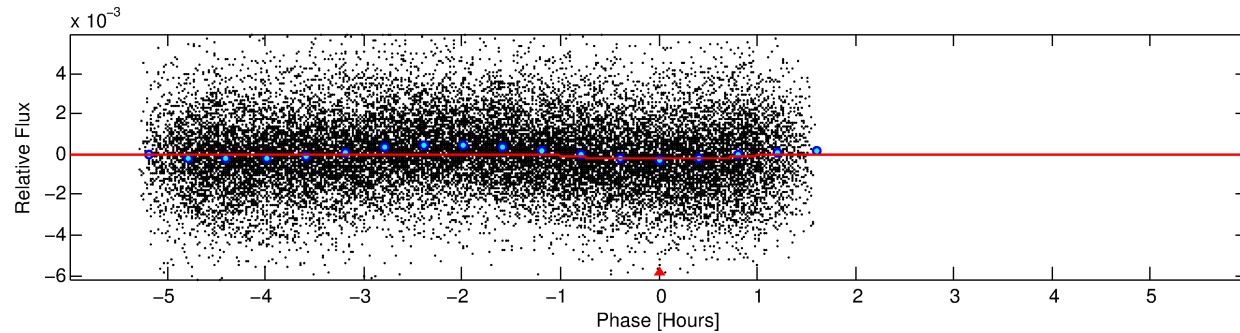
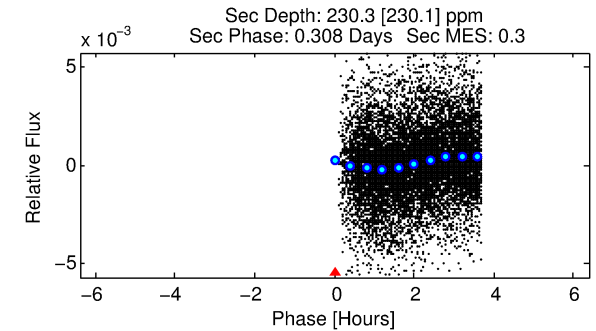
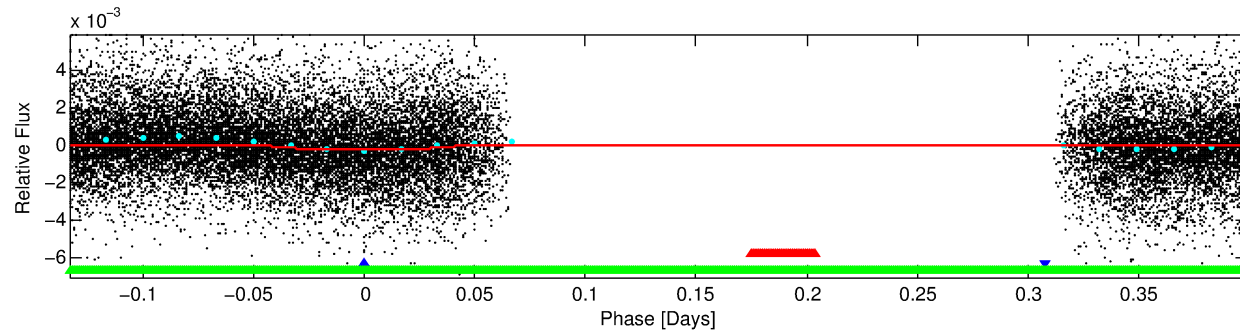
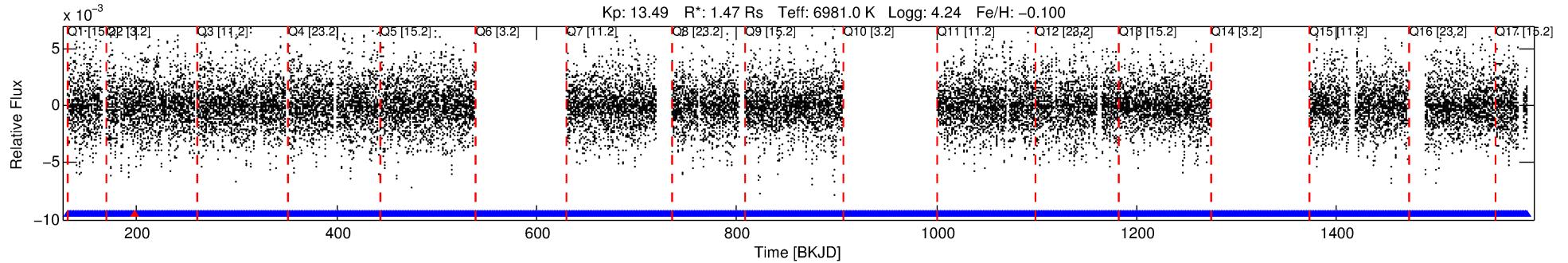
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005459805-02

No Significant Match Found

DV One-Page Summary

KIC: 5459805 Candidate: 2 of 3 Period: 0.533 d



DV Fit Results:

Period = 0.53271 [0.00003] d
Epoch = 131.8924 [0.0018] BKJD
Rp/R* = 0.0150 [0.0050]
a/R* = 1.34 [1.06]
b = 0.90 [0.38]
Seff = 22441.92 [9356.41]
Teq = 3121 [325] K
Rp = 2.40 [1.13] Re
a = 0.0143 [0.0039] AU
Ag = 4.50 [5.67] [0.62σ]
Teffp = 7028 [2130] K [1.81σ]

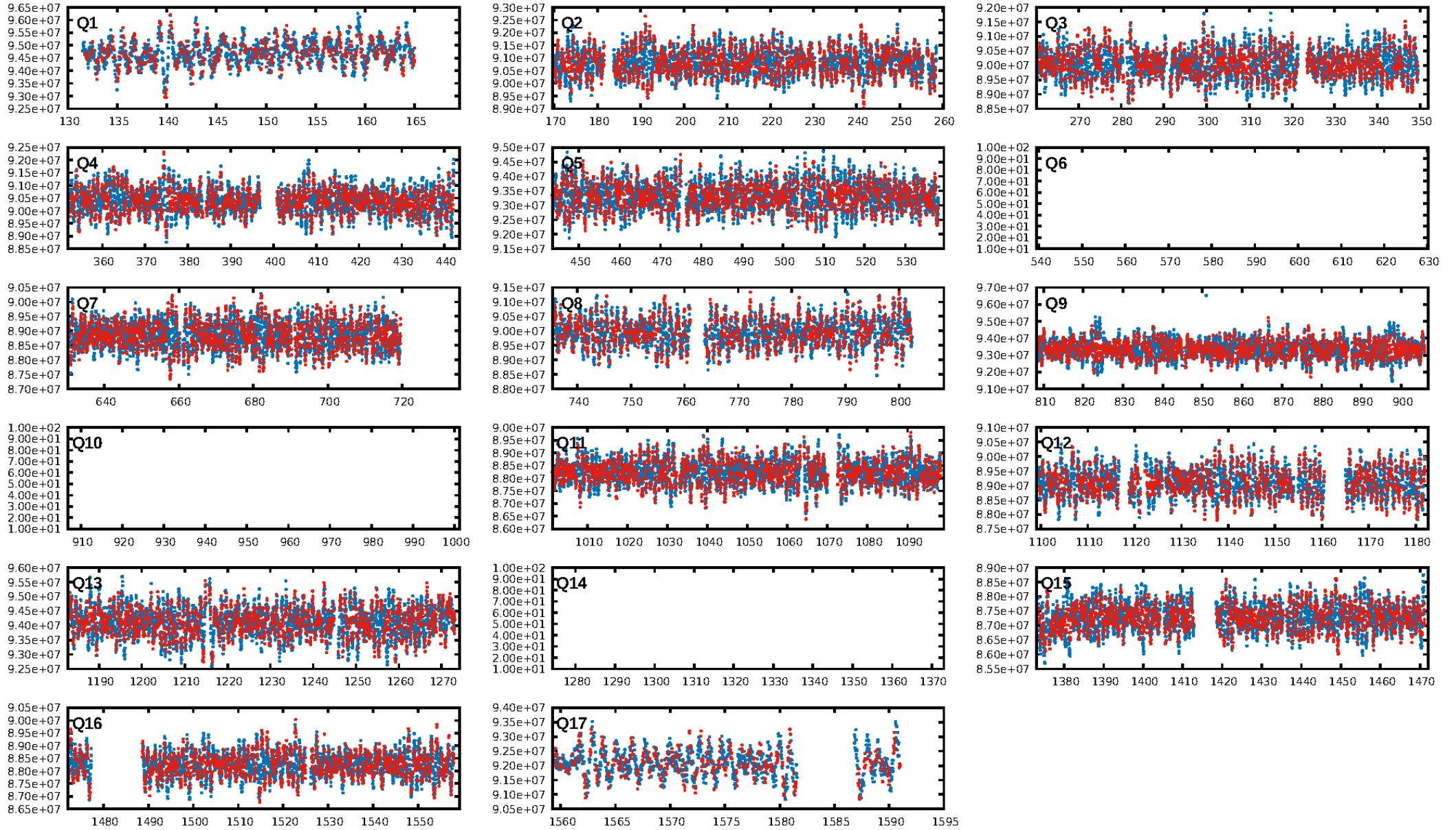
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [1897/1898]
GhostDiagnostic-chr: 0.2982
Centroid-sig: 90.6%
Centroid-so: 0.122 arcsec [1.06σ]
OotOffset-rm: 0.171 arcsec [1.38σ]
OotOffset-st: 1/4/4/5 [14]
KicOffset-rm: 0.223 arcsec [2.00σ]
KicOffset-st: 1/4/4/5 [14]
DiffImageQuality-fgm: 1.00 [14/14]
DiffImageOverlap-fno: 0.00 [0/14]

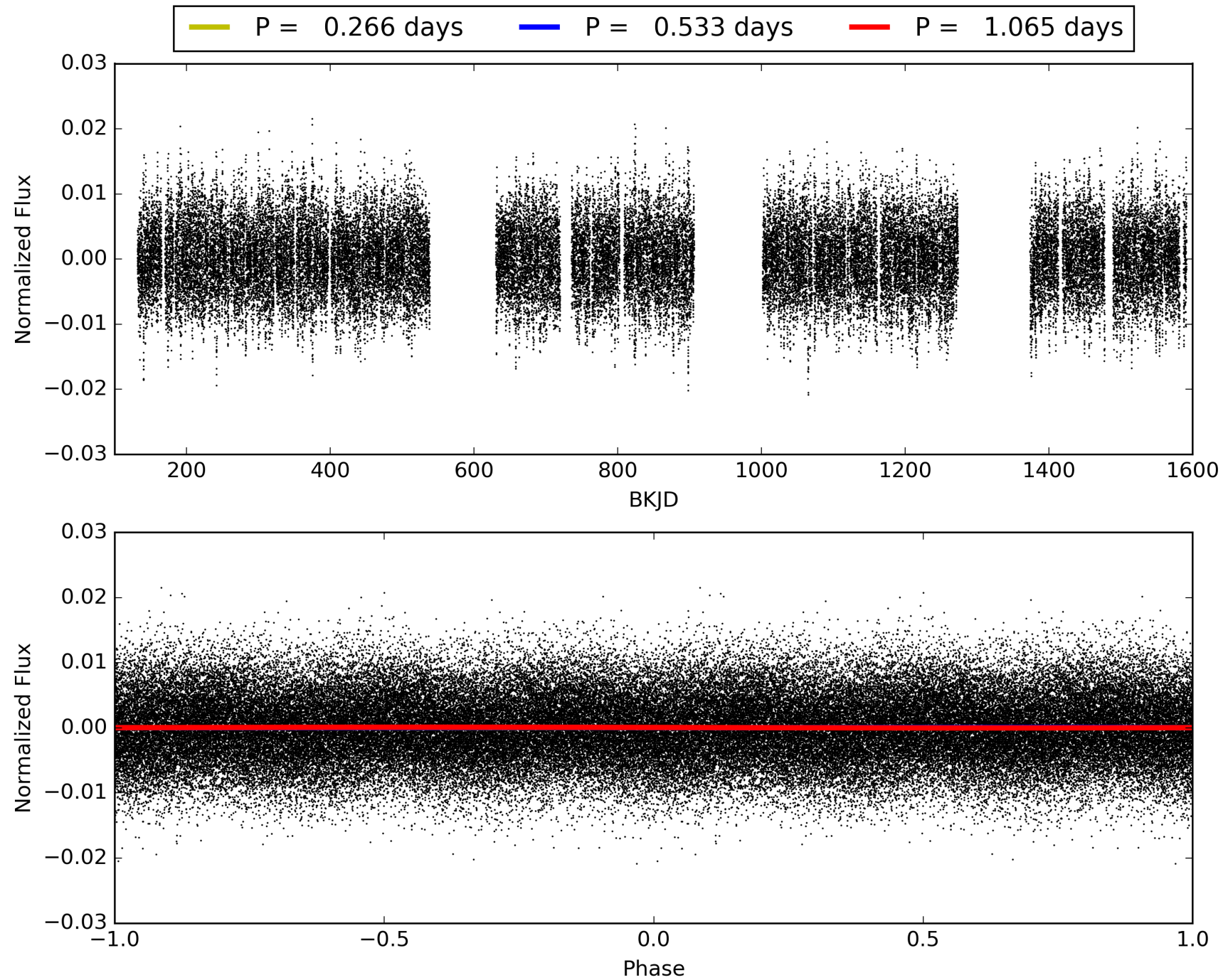
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:33:45 Z

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

TCE 005459805-02, PDC Light Curves

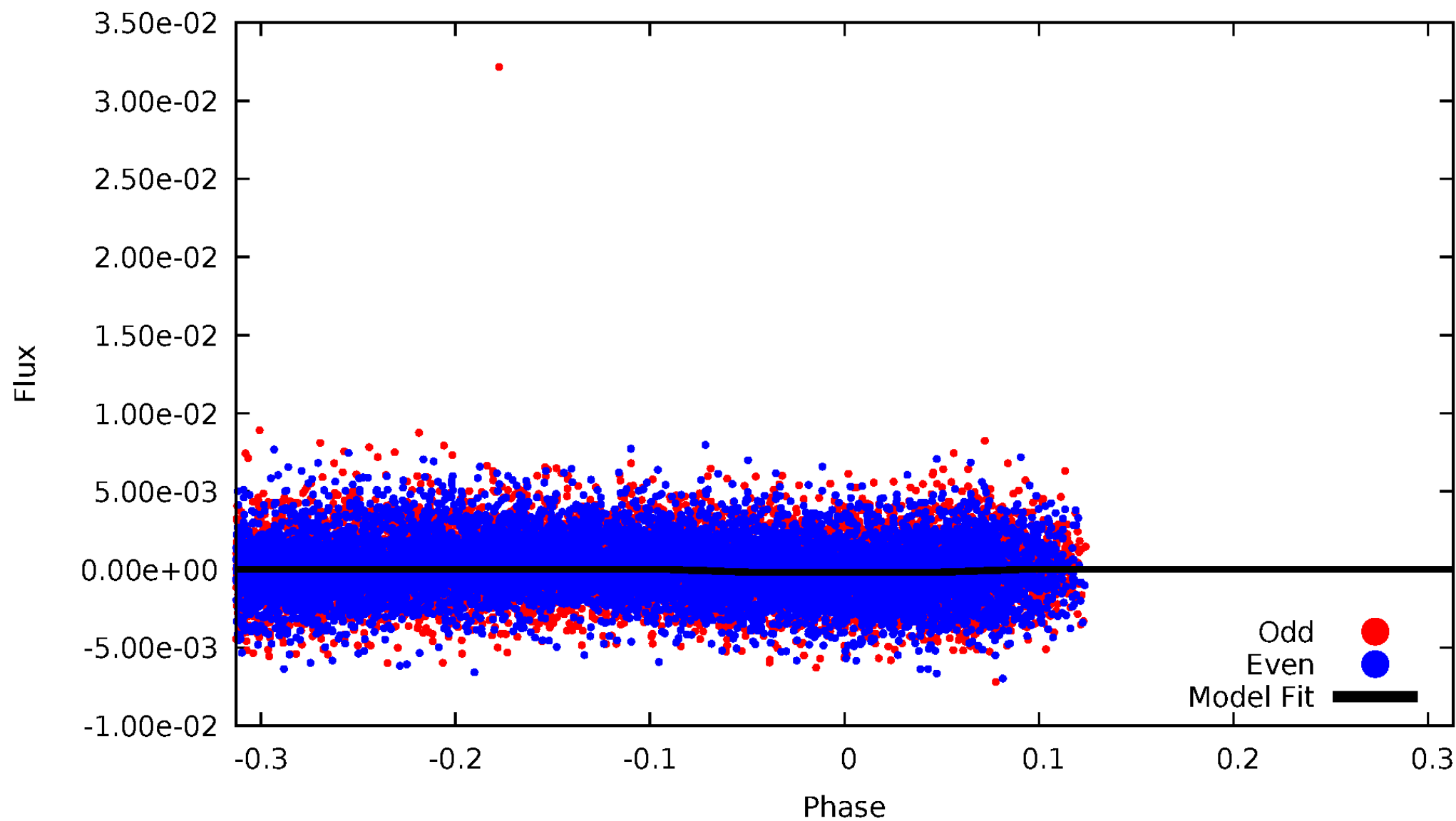


TCE 005459805-02



DV Odd/Even

TCE 005459805-02

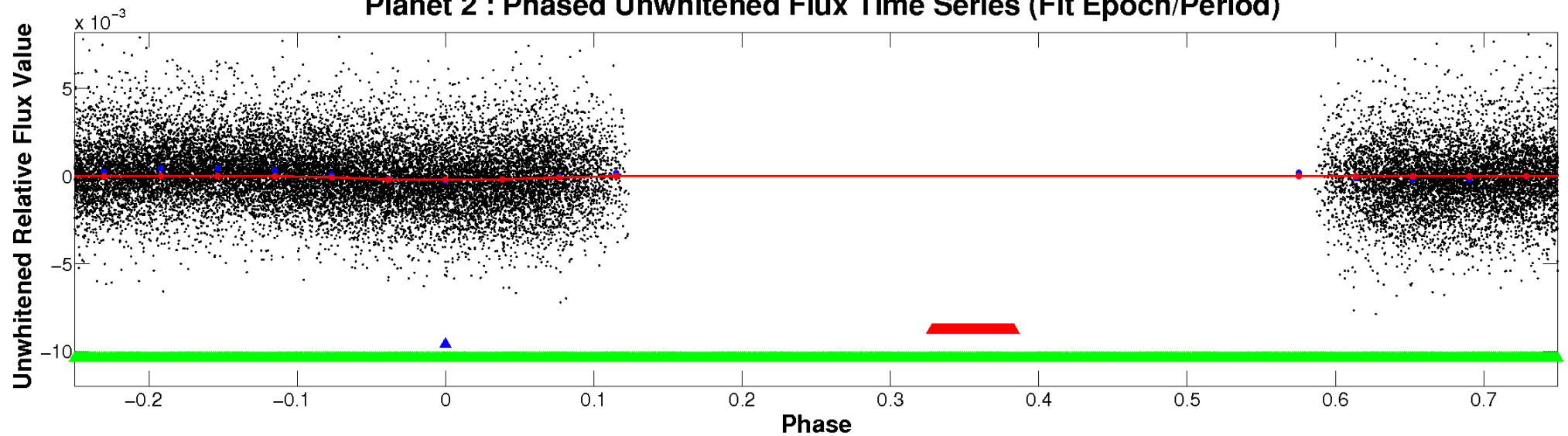


ALT Odd/Even

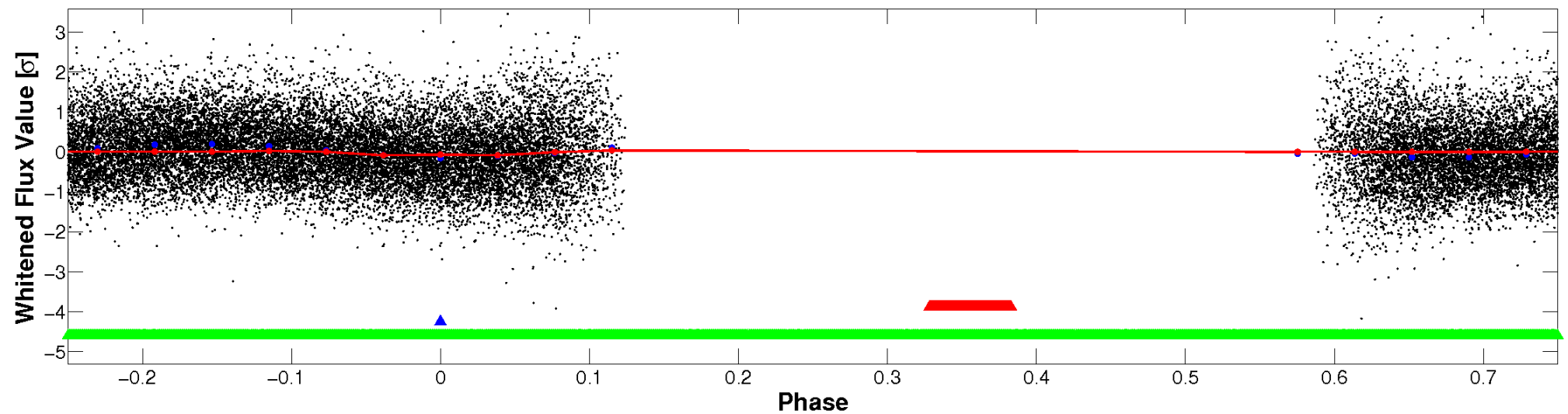
This plot does not exist for this TCE.

Non-Whitened Vs. Whitened Light Curve

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

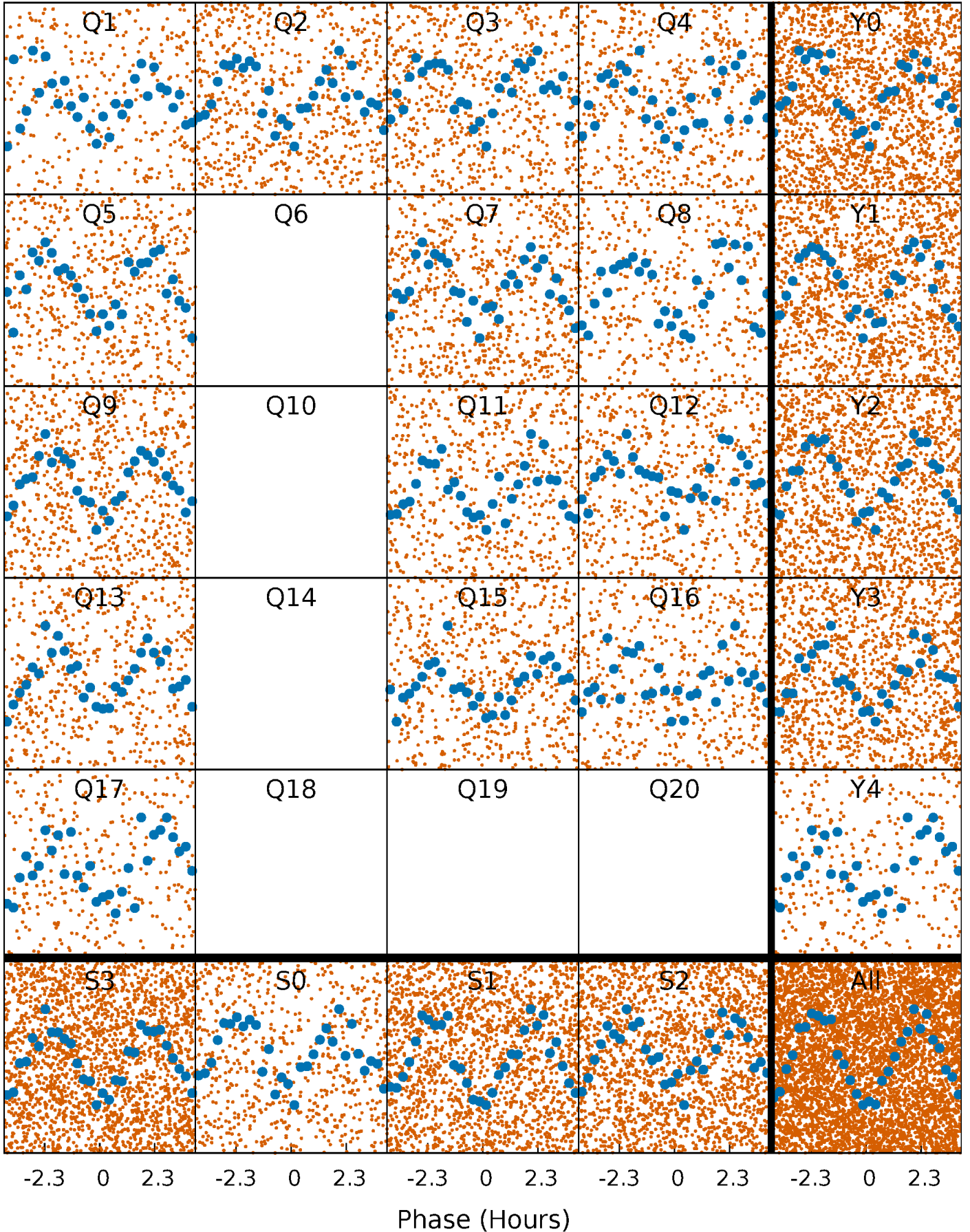


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



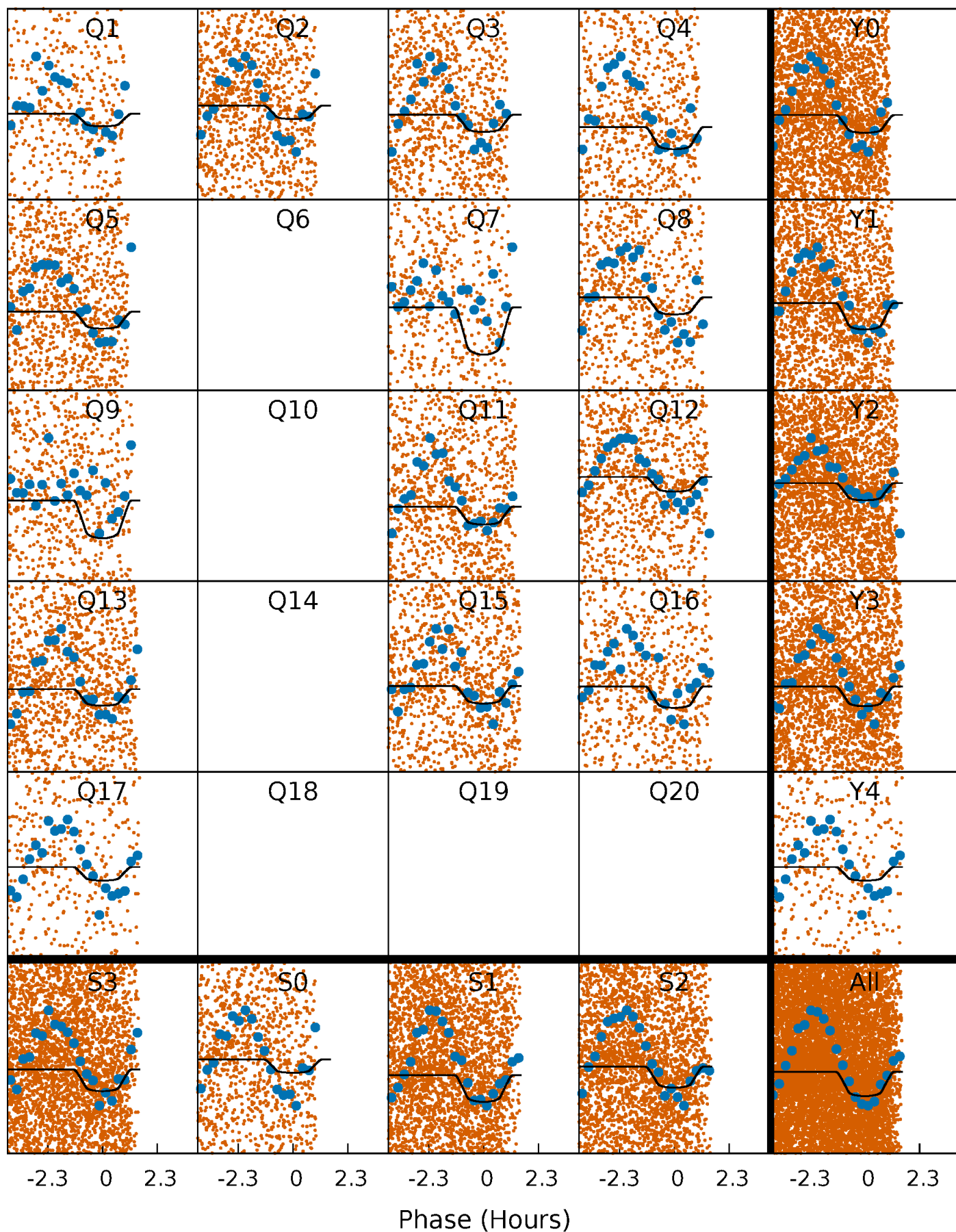
PDC Quarter-Phased Transit Curves

TCE 005459805-02 P= 0.532711 Days $T_0=131.892444$ (BKJD)



DV Quarter-Phased Transit Curves

TCE 005459805-02 P= 0.532711 Days $T_0=131.892444$ (BKJD)

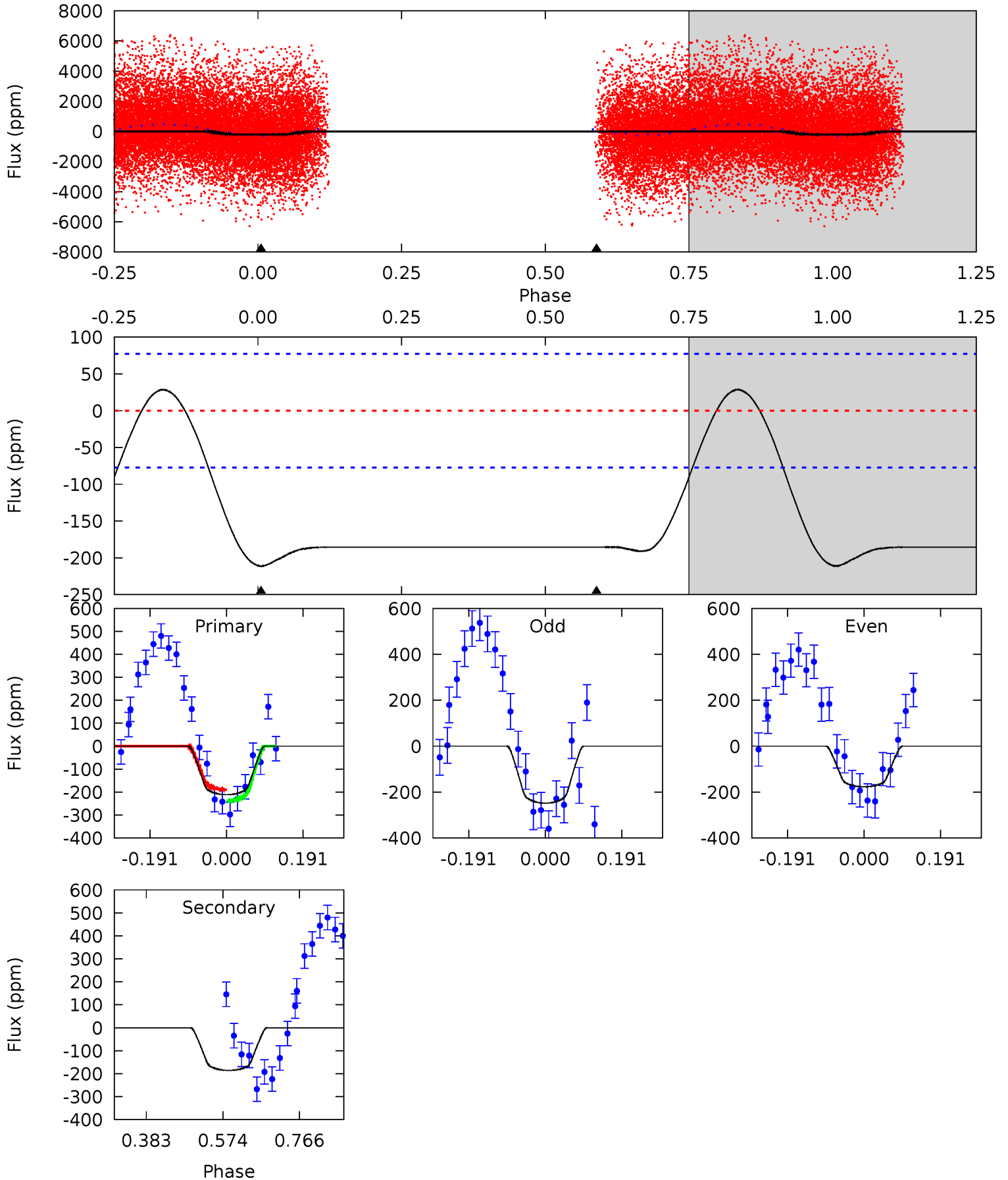


This plot does not exist for this TCE.

DV Model-Shift Uniqueness Test

005459805-02, P = 0.532711 Days, E = 131.359733 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.1	10.6	0	0	4.43	1.31	1.19	12.1	12.1	10.6	10.6	2.03	0.87	0.12	1.32



Alt Model-Shift Uniqueness Test

This plot does not exist for this TCE.

Stellar Parameters For KIC 005459805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6981^{+194}_{-291}	$4.242^{+0.101}_{-0.203}$	$-0.100^{+0.250}_{-0.350}$	$1.468^{+0.487}_{-0.225}$	$1.378^{+0.202}_{-0.222}$	$0.614^{+0.290}_{-0.311}$
	+3%/-4%	+2%/-5%	+250%/-350%	+33%/-15%	+15%/-16%	+47%/-51%
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 005459805-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-186 ± 17	$2.48^{+0.93}_{-0.83}$	4420^{+353}_{-260}	6374^{+1713}_{-928}	$3.261^{+4.344}_{-1.531}$
Alt.	N/A	N/A	N/A	N/A	N/A

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 $A_{obs} \gg 1.0$

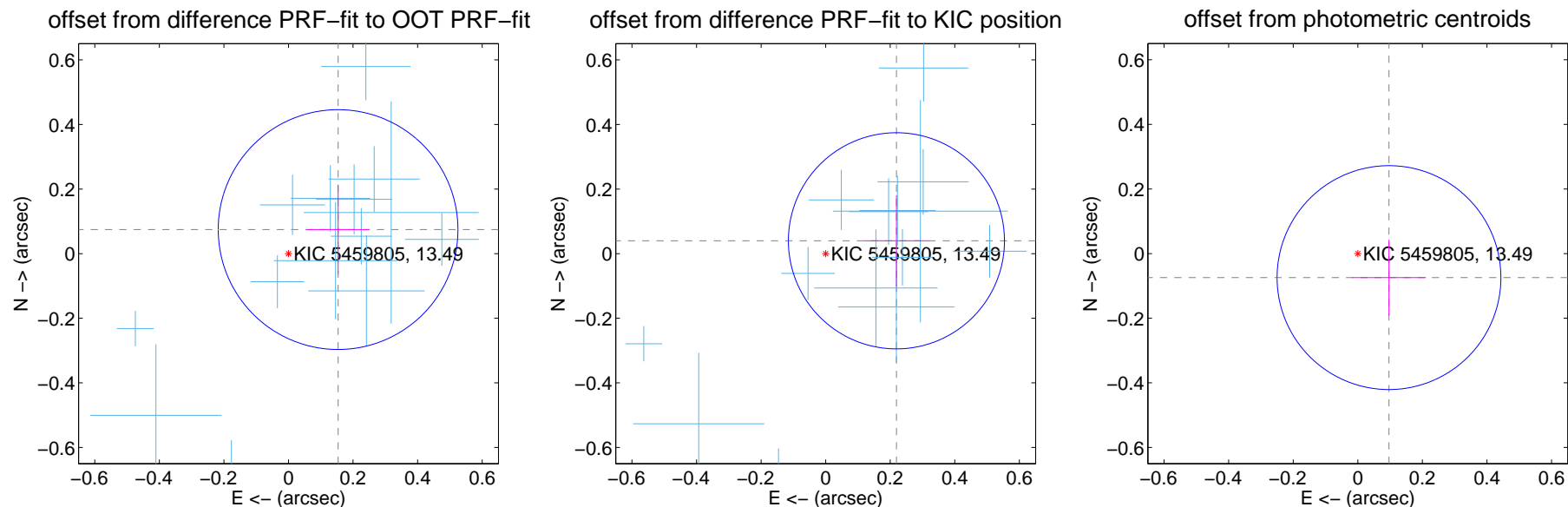
DV Centroid Data

Supplemental centroid analysis for 005459805-02. Kepler magnitude: 13.49. Transit SNR 6.66

There are 14 quarters with good PRF difference image offsets

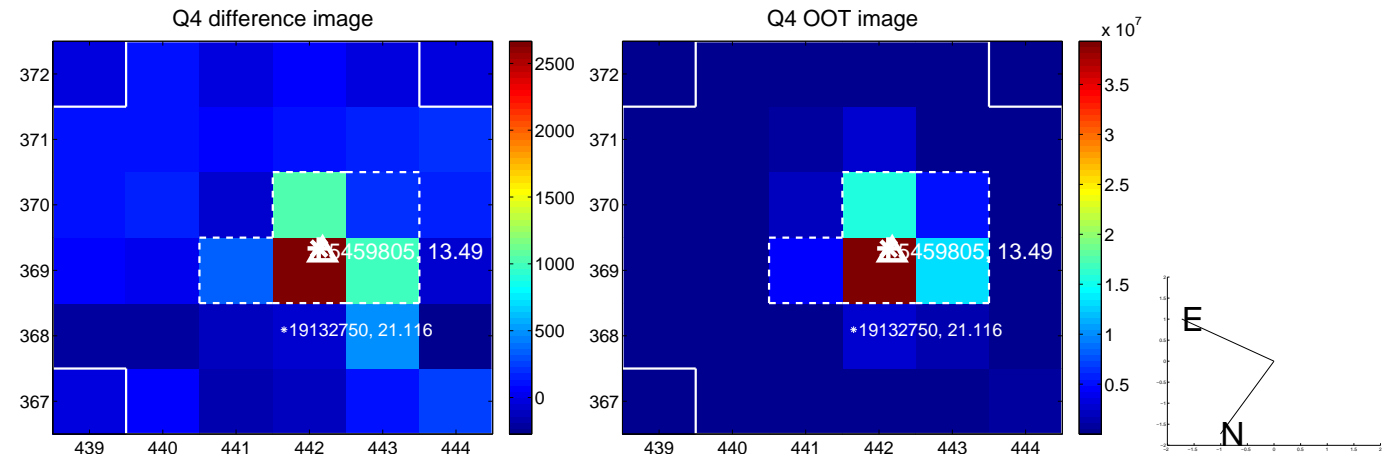
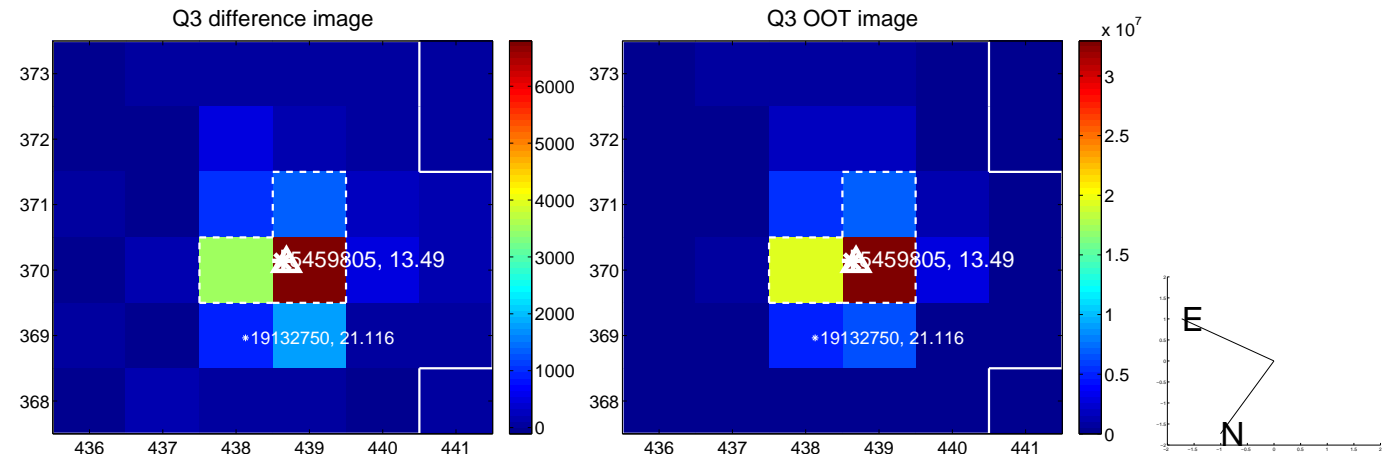
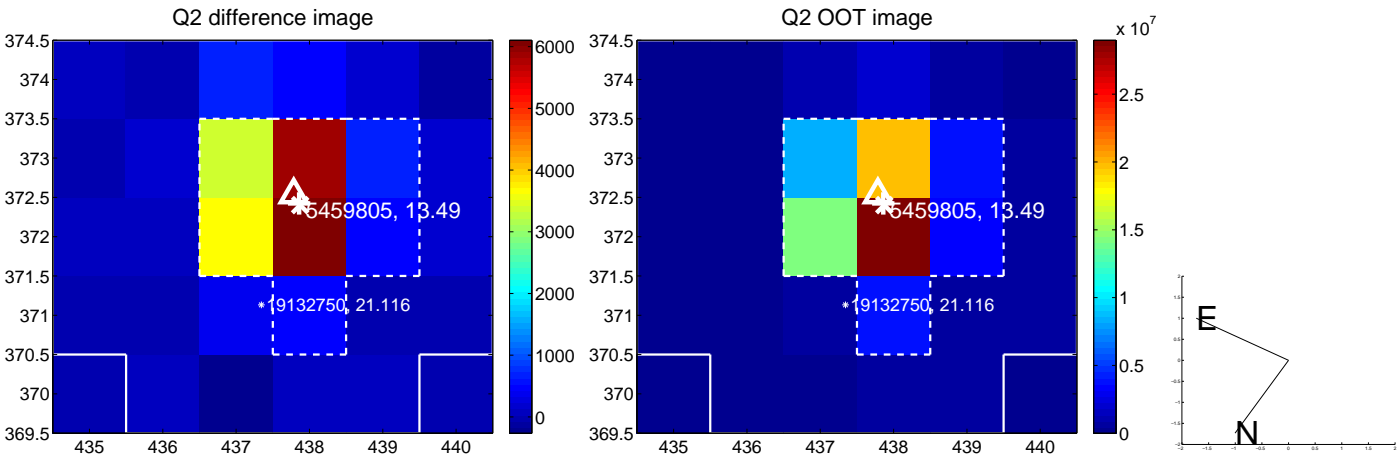
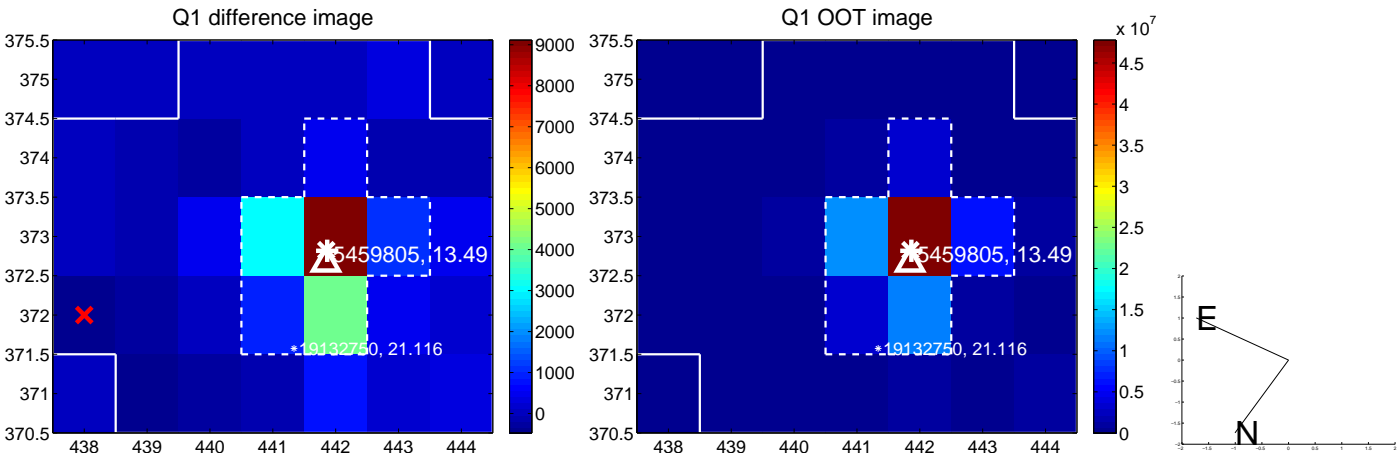
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.171 ± 0.124	1.38	-0.154 ± 0.097	0.075 ± 0.138
PRF-fit source offset from KIC position	0.223 ± 0.112	2.00	-0.219 ± 0.101	0.040 ± 0.141
photometric centroid source offset	0.12 ± 0.12	1.06	-0.10 ± 0.11	-0.07 ± 0.12

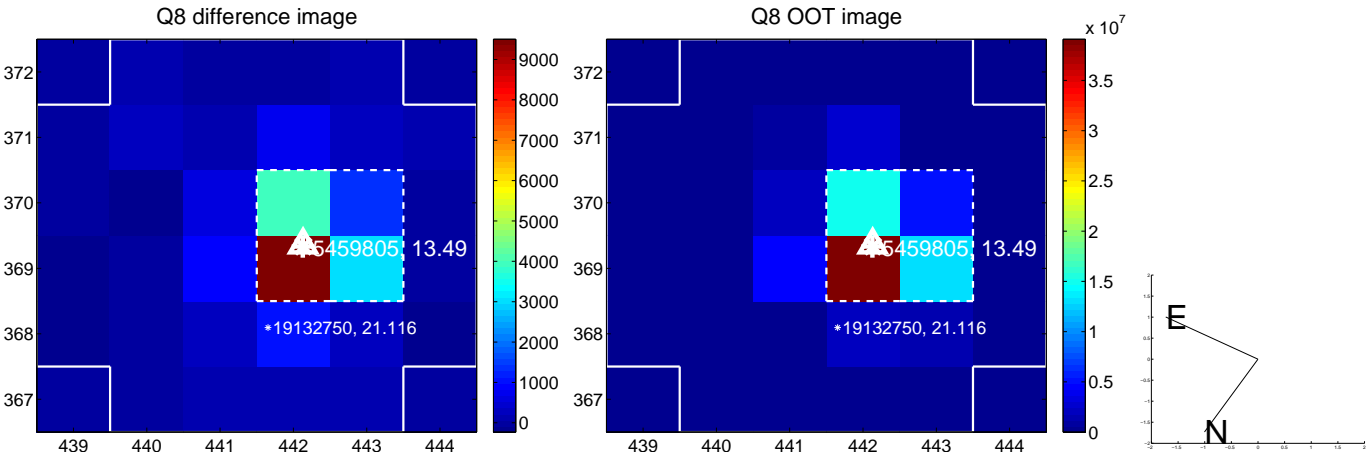
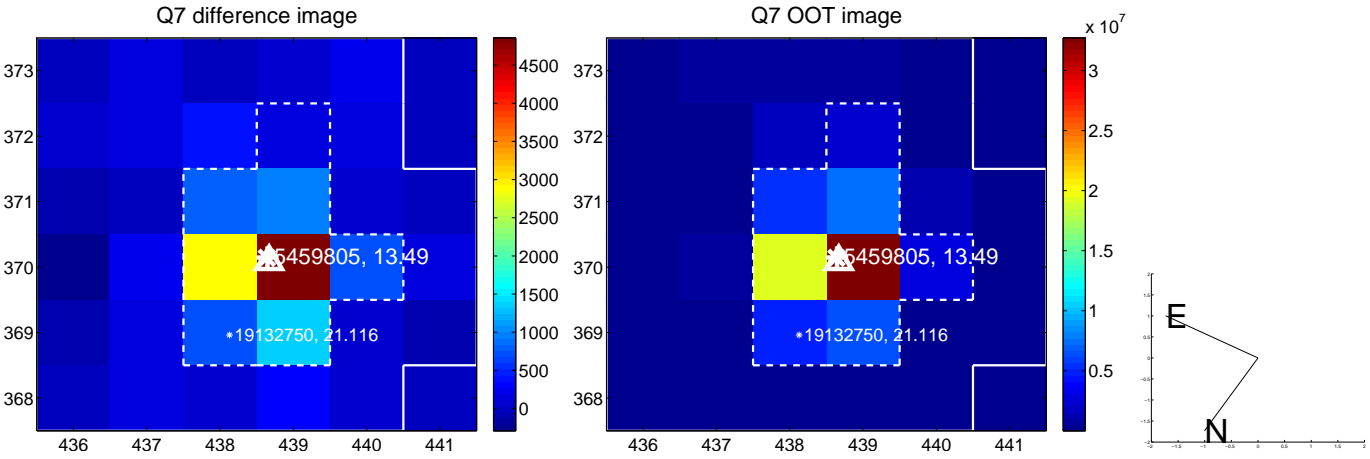
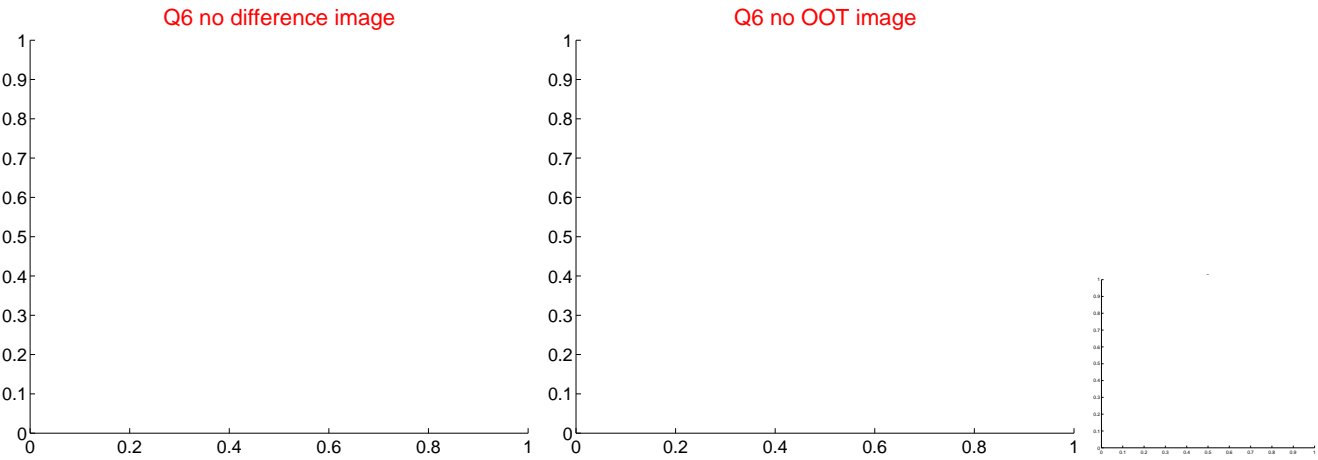
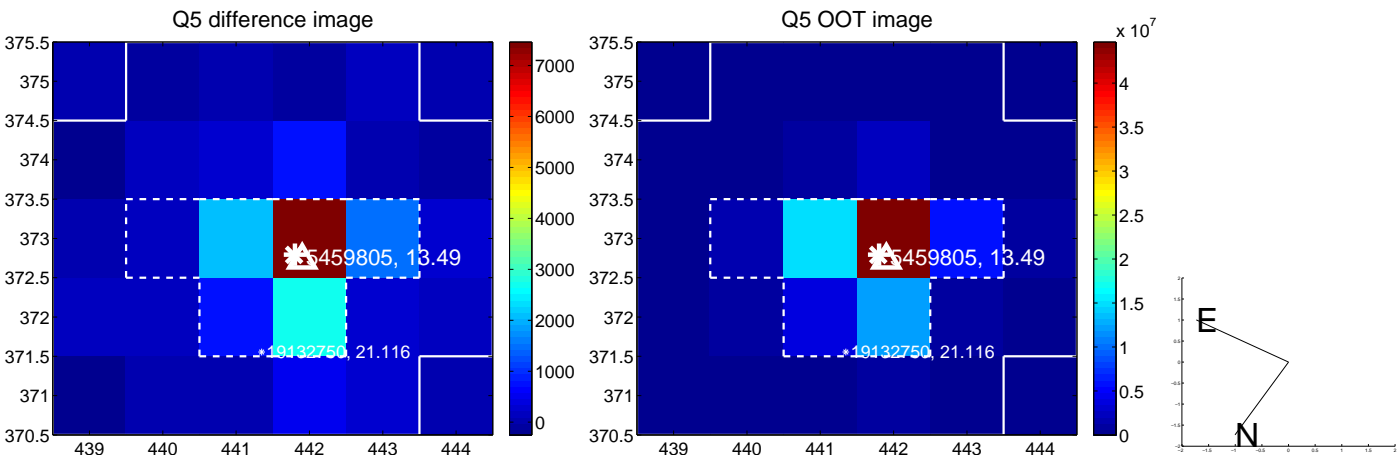


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

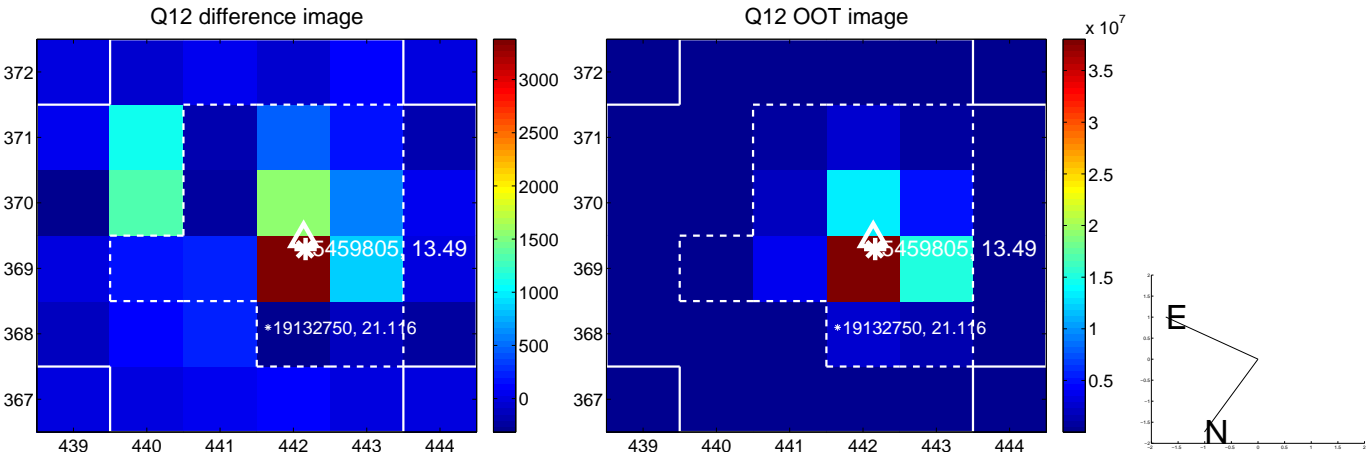
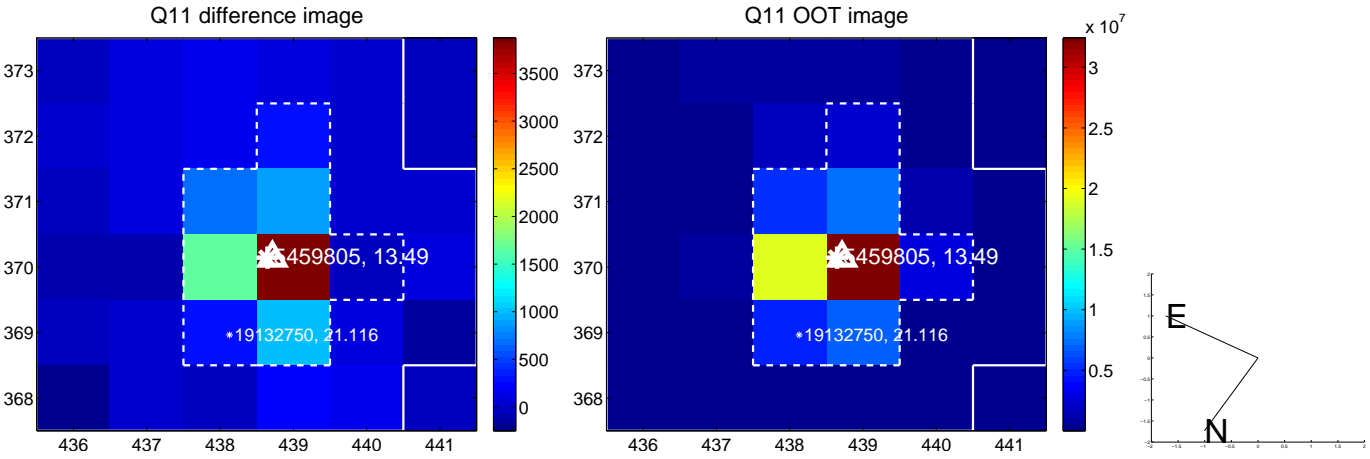
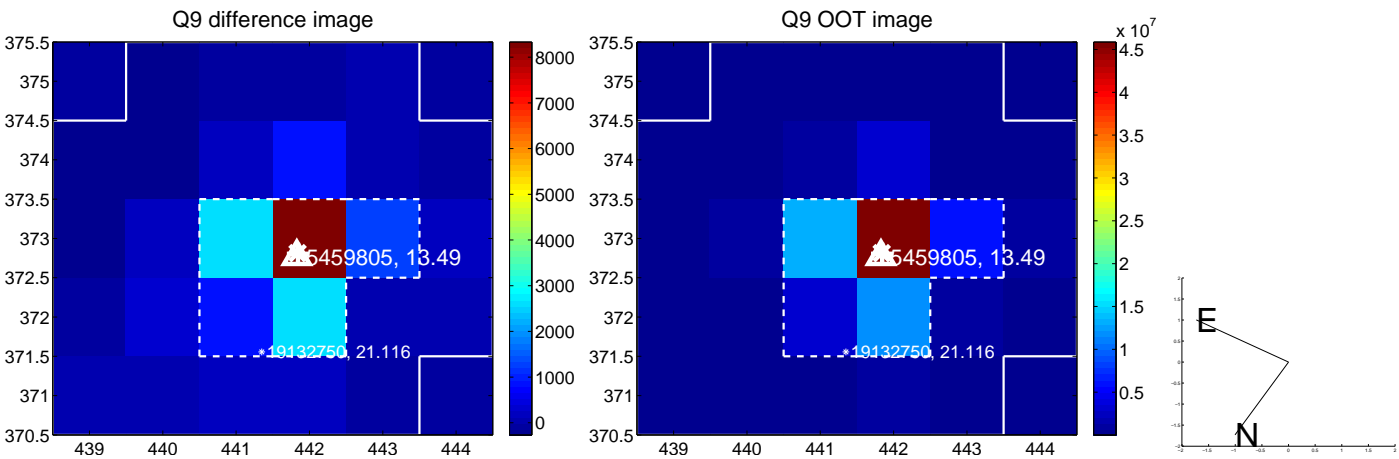
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



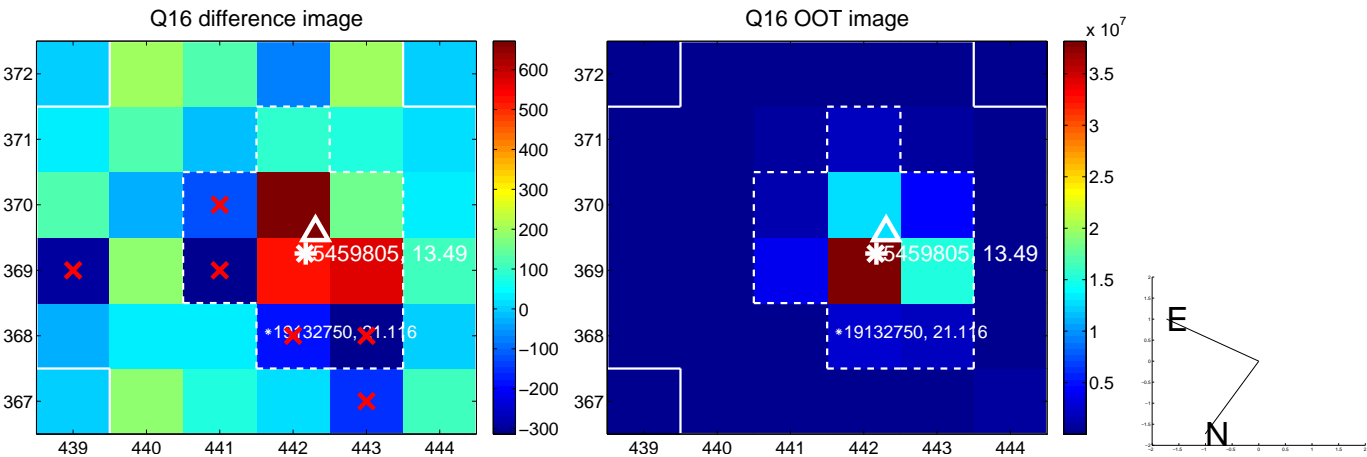
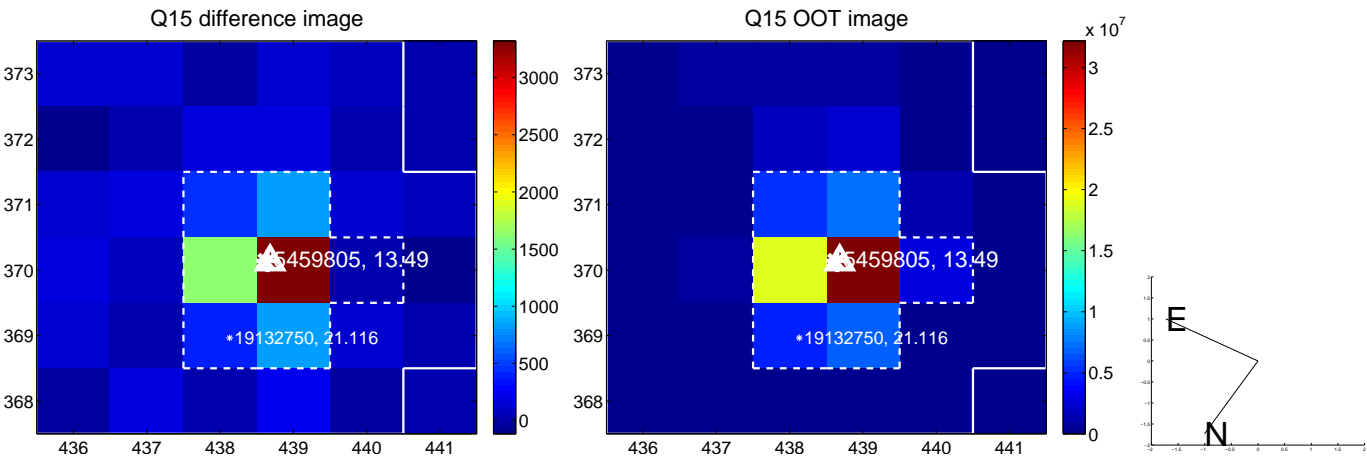
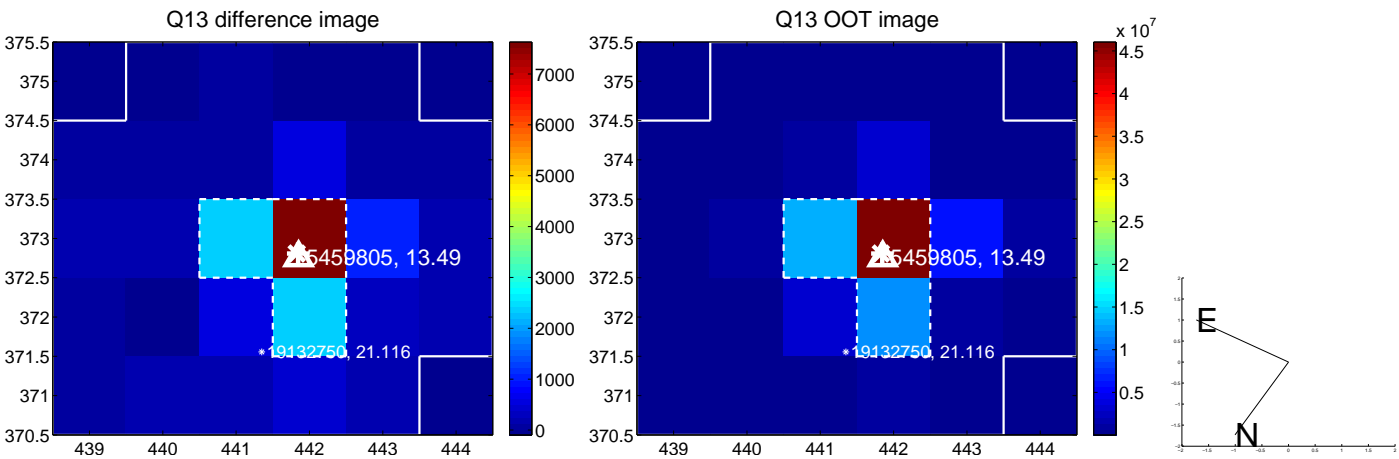
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



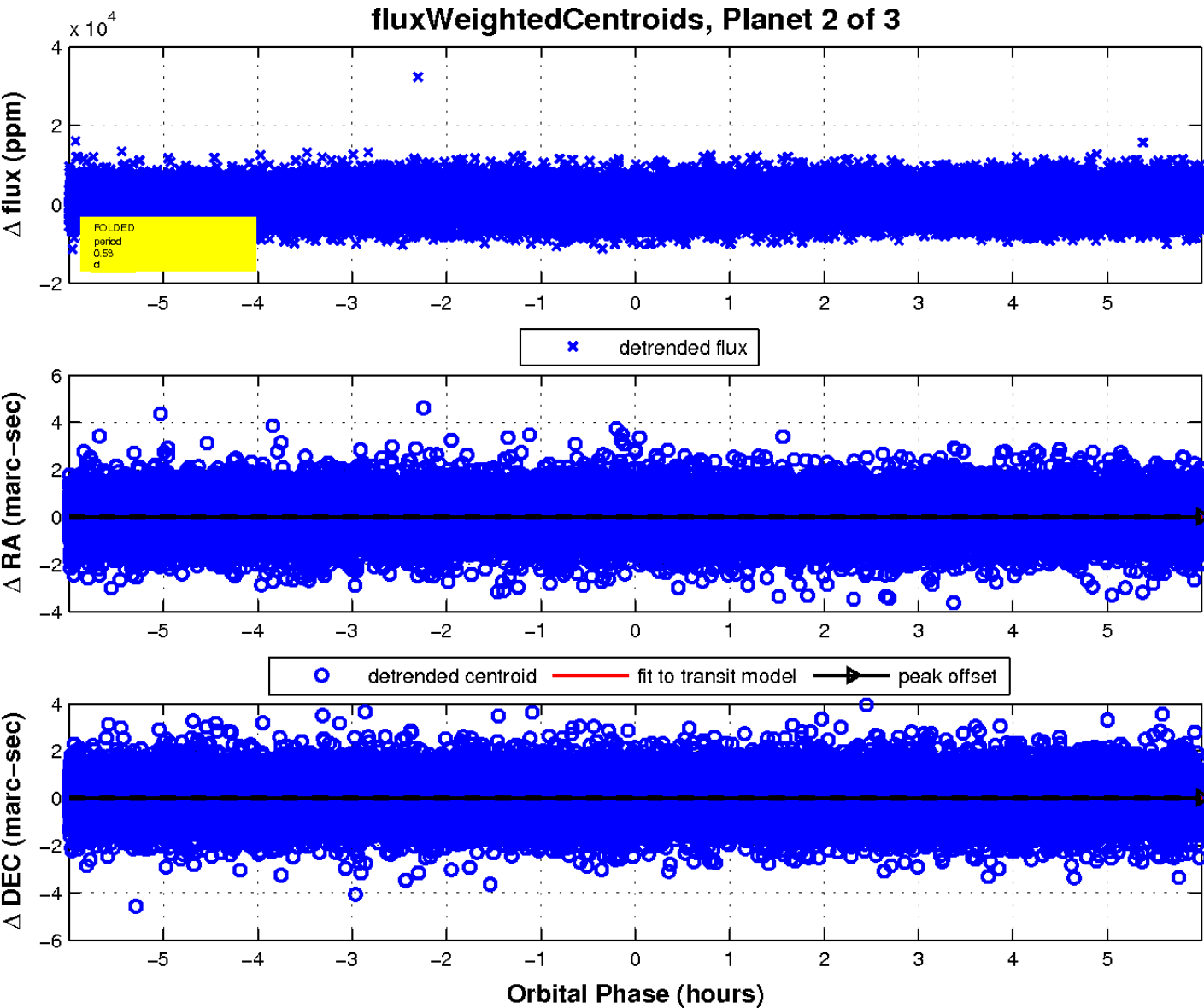
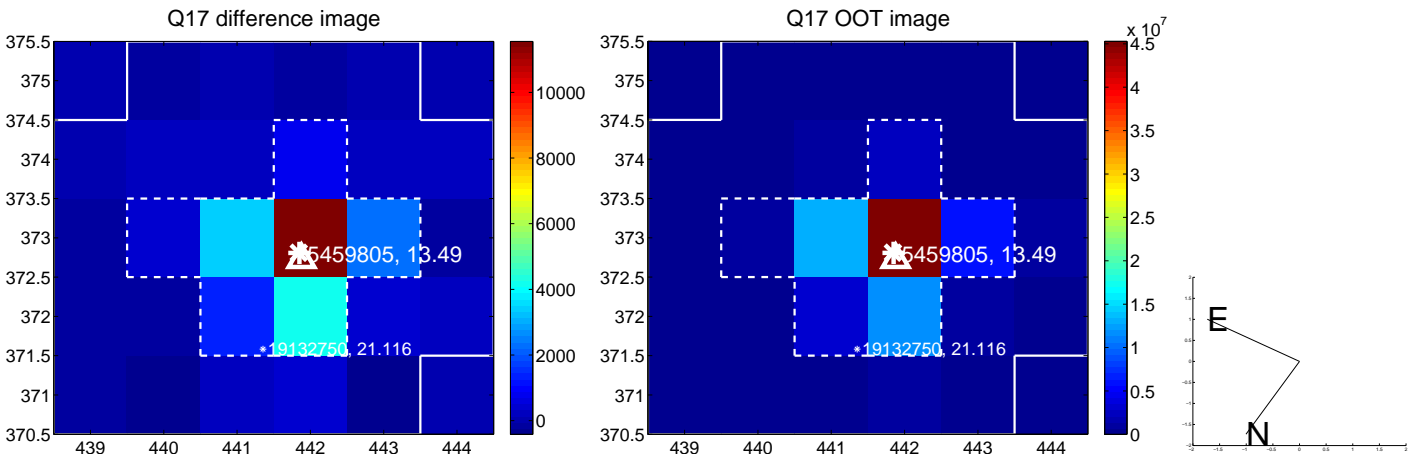
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

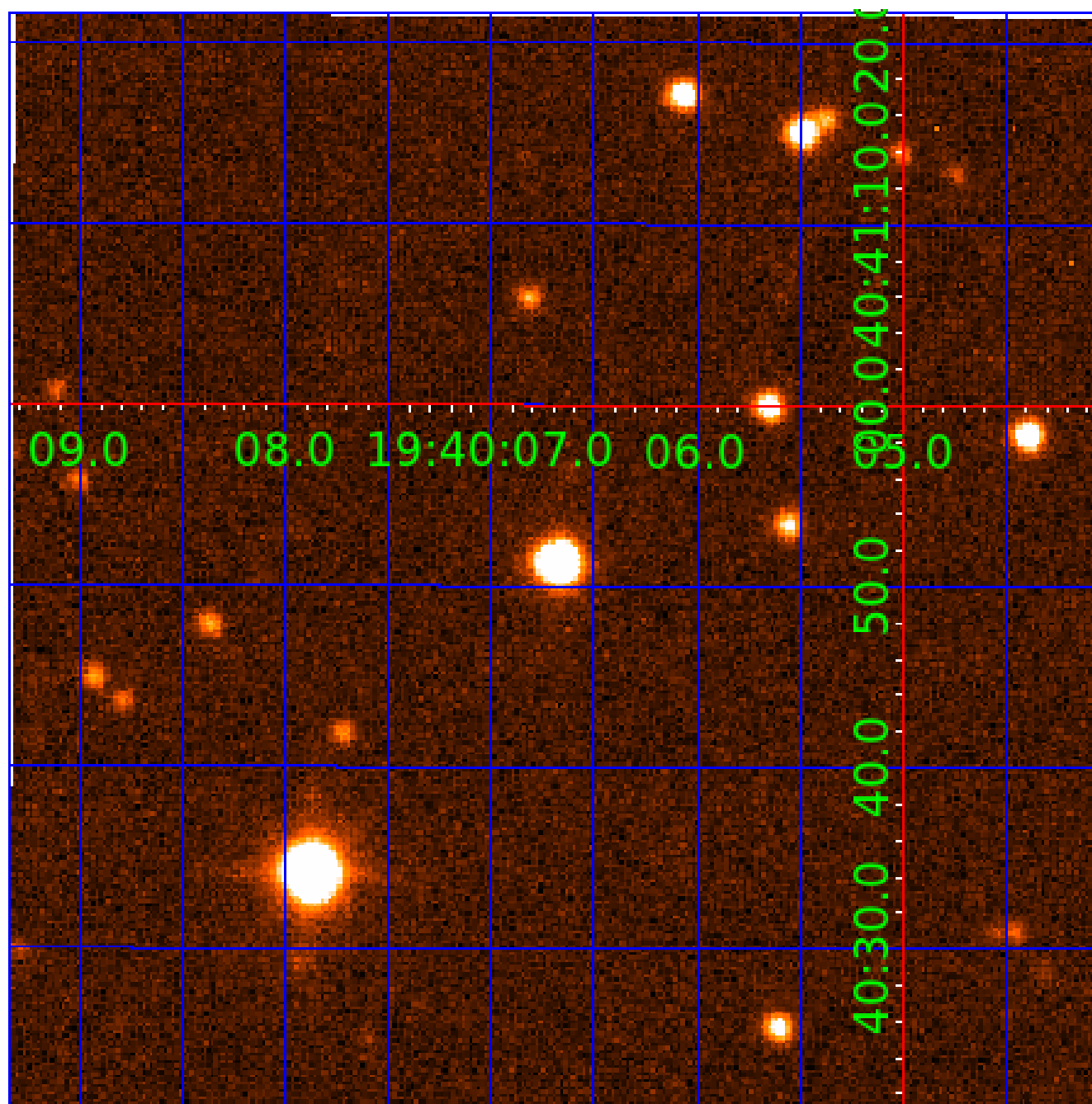


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005459805

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})
005459805-01	OBS	No	0.532722	131.534498	149.2	2.034	9.2	8.0	1.47	6981	2.09	22441.32
005459805-02	OBS	No	0.532711	131.892444	197.1	2.000	9.8	6.7	1.47	6981	2.40	22441.92
005459805-03	OBS	No	0.615412	131.953026	1642.9	2.327	9.0	15.5	1.47	6981	6.94	18513.76

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005459805-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005459805-02	OBS	FP	0.00	1	0	0	0	LPP_DV—SAME_NTL_PERIOD
005459805-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—LPP_ALT—MOD_NONUNIQ_ALT

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

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

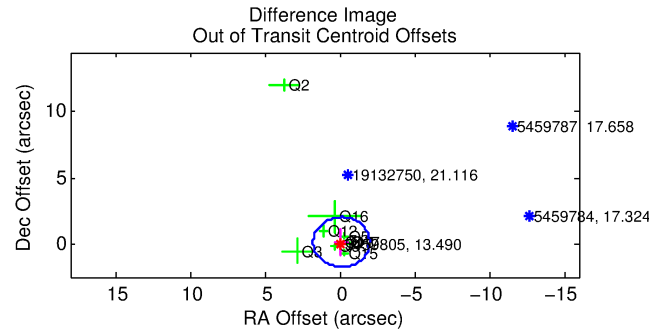
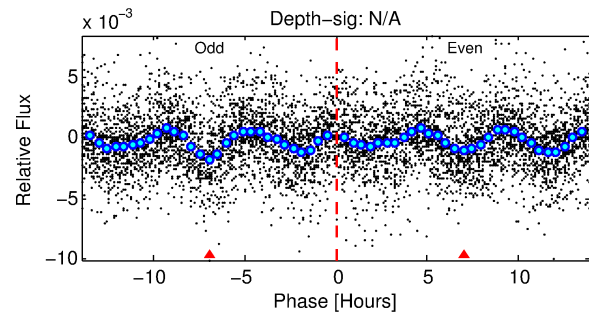
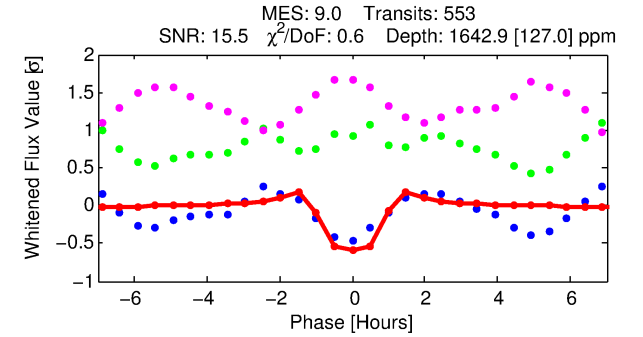
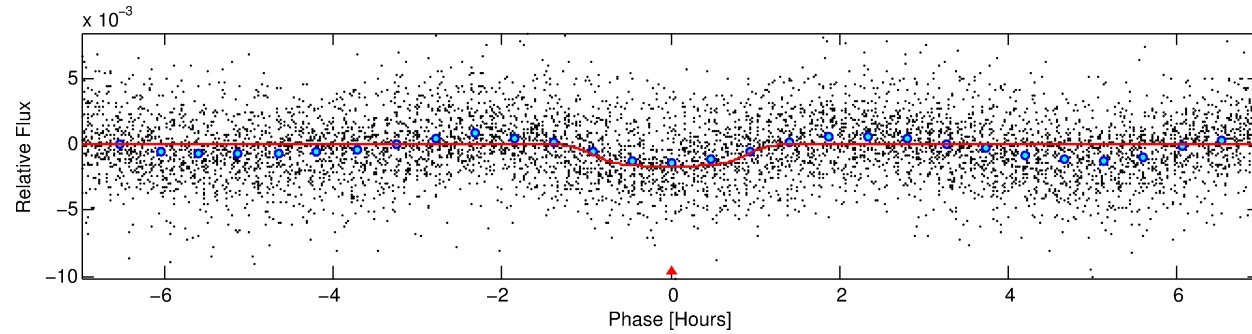
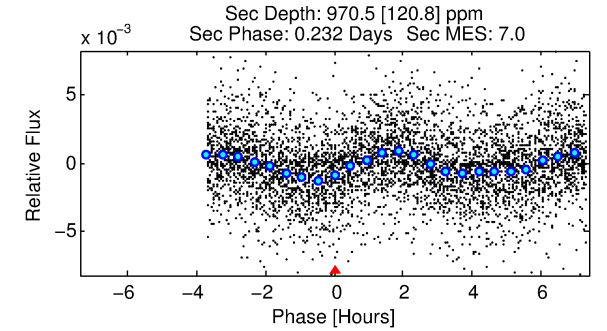
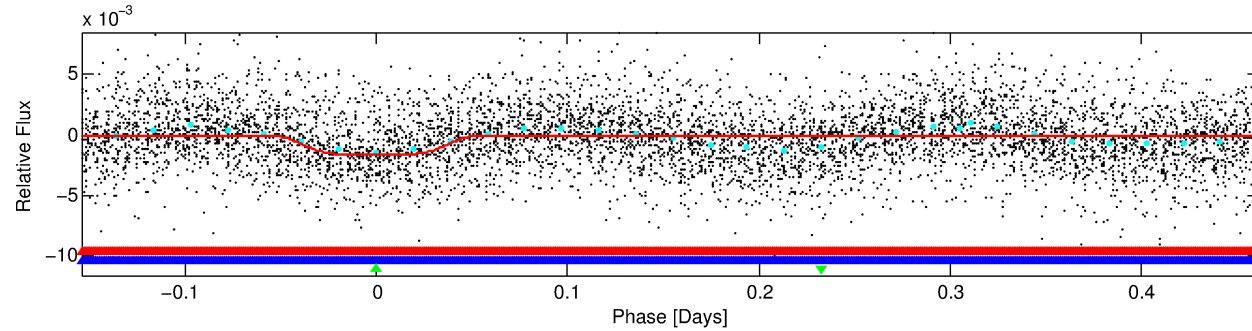
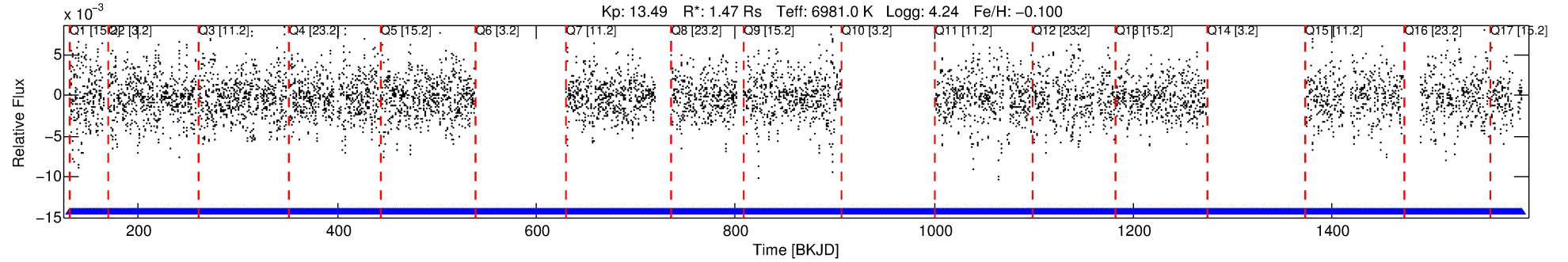
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005459805-03

No Significant Match Found

DV One-Page Summary

KIC: 5459805 Candidate: 3 of 3 Period: 0.615 d



DV Fit Results:

Period = 0.61541 [0.00001] d
Epoch = 131.9530 [0.0012] BKJD
Rp/R* = 0.0433 [0.0029]
a/R* = 1.43 [0.19]
b = 0.90 [0.06]
Seff = 18513.76 [7718.69]
Teq = 2974 [310] K
Rp = 6.94 [2.35] Re
a = 0.0157 [0.0043] AU
Ag = 2.75 [1.16] [1.50σ]
Teffp = 5921 [365] K [6.15σ]

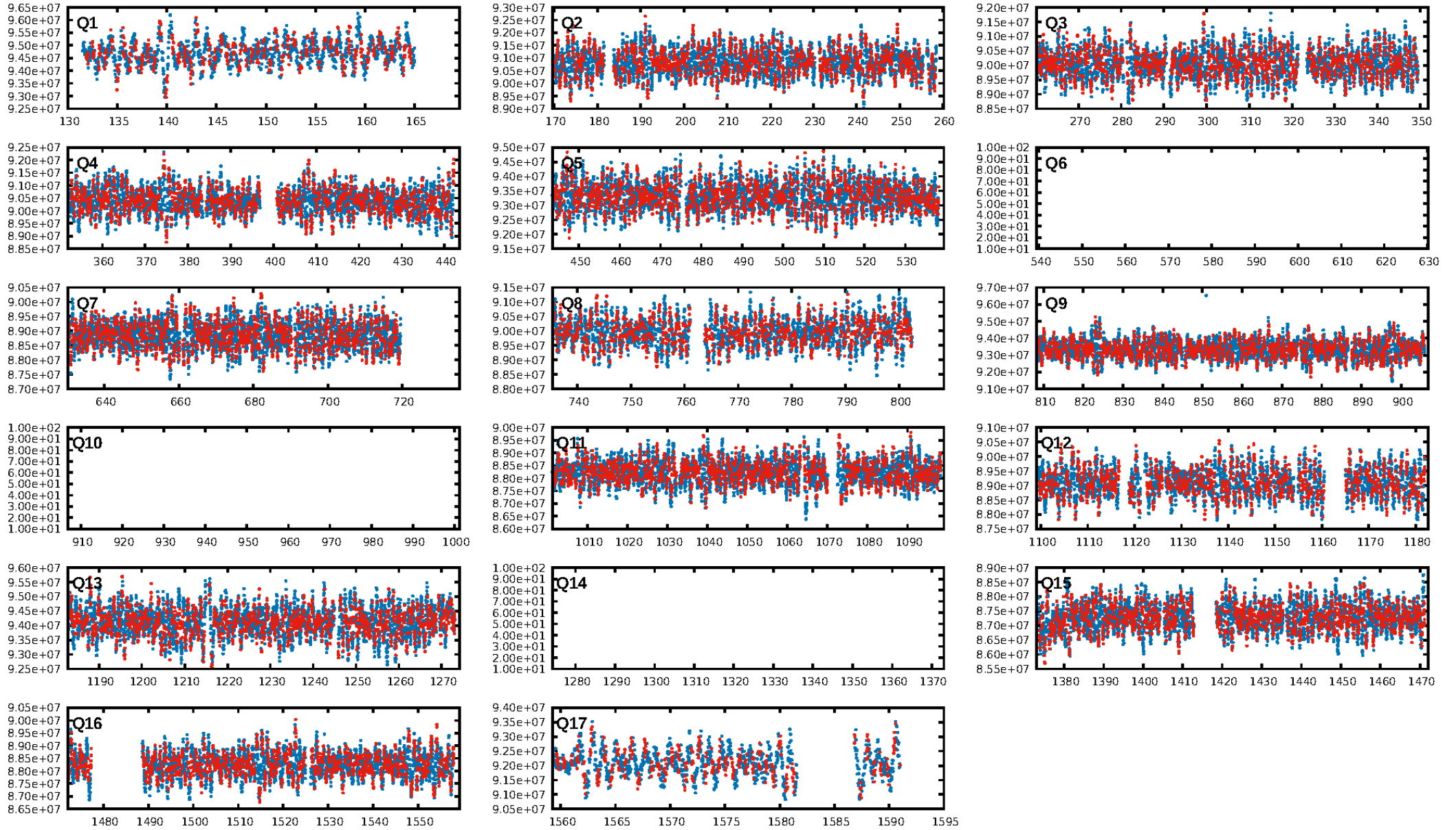
DV Diagnostic Results:

ShortPeriod-sig: 47.9% [0.64σ]
LongPeriod-sig: N/A
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: N/A
RollingBand-fgt: 1.00 [523/523]
GhostDiagnostic-chr: 0.4961
Centroid-sig: 8.5%
Centroid-so: 0.098 arcsec [6.40σ]
OotOffset-rm: 0.191 arcsec [0.30σ]
KicOffset-rm: 0.163 arcsec [0.34σ]
OotOffset-st: 1/4/2/4 [11]
KicOffset-st: 1/4/2/4 [11]
DiffImageQuality-fgm: 0.45 [5/11]
DiffImageOverlap-fno: 0.00 [0/14]

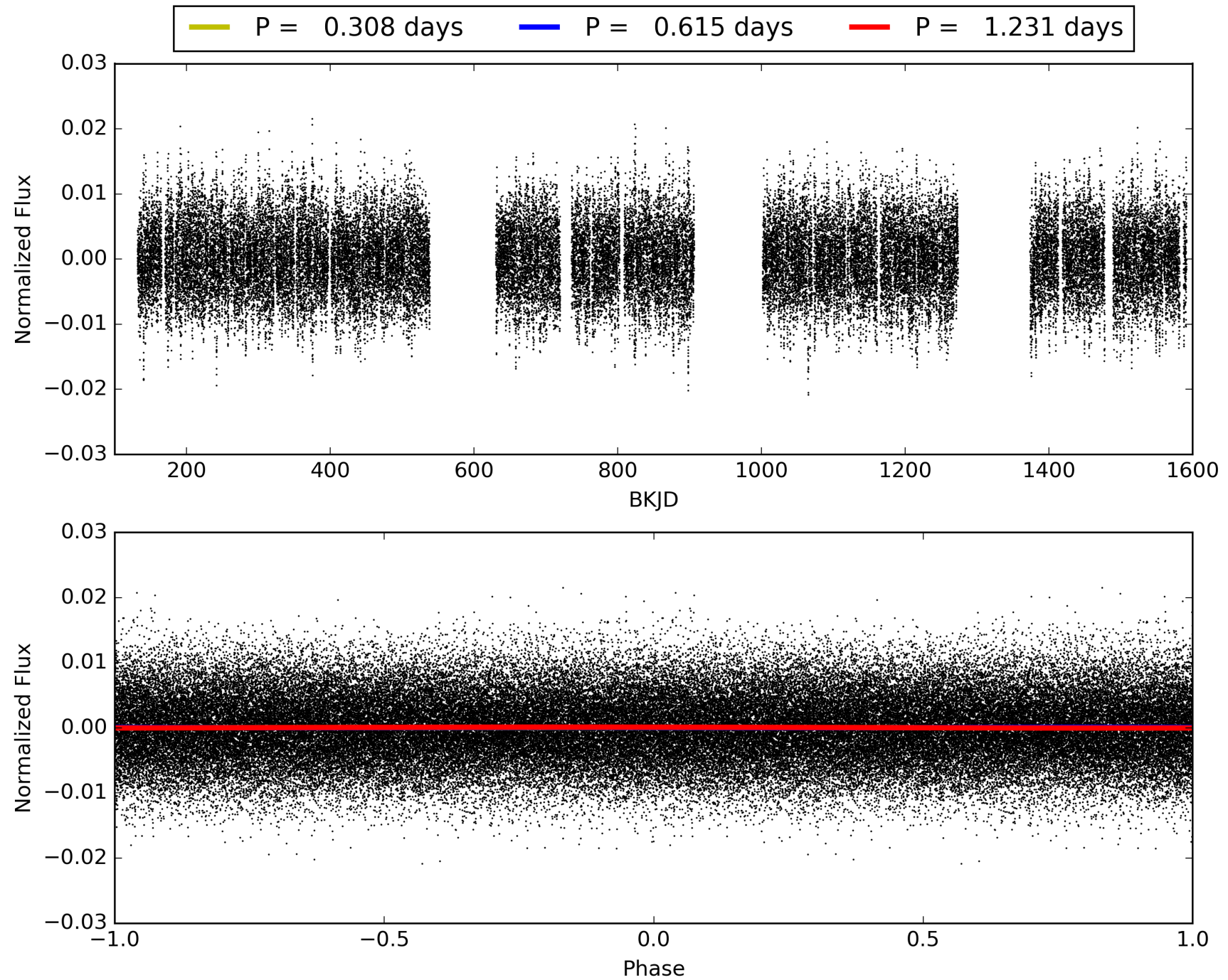
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 31-Jan-2016 05:33:53 Z

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

TCE 005459805-03, PDC Light Curves

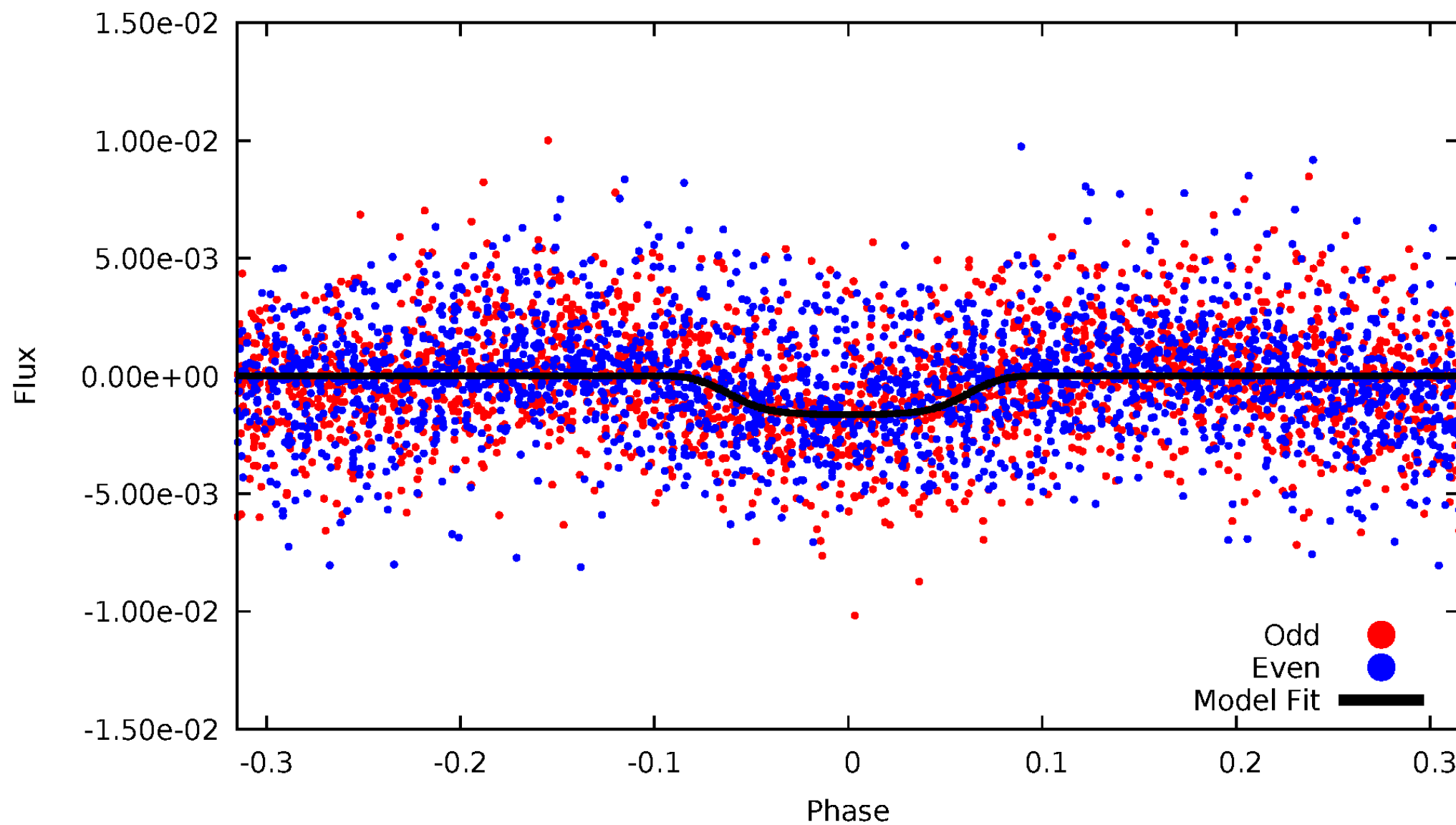


TCE 005459805-03



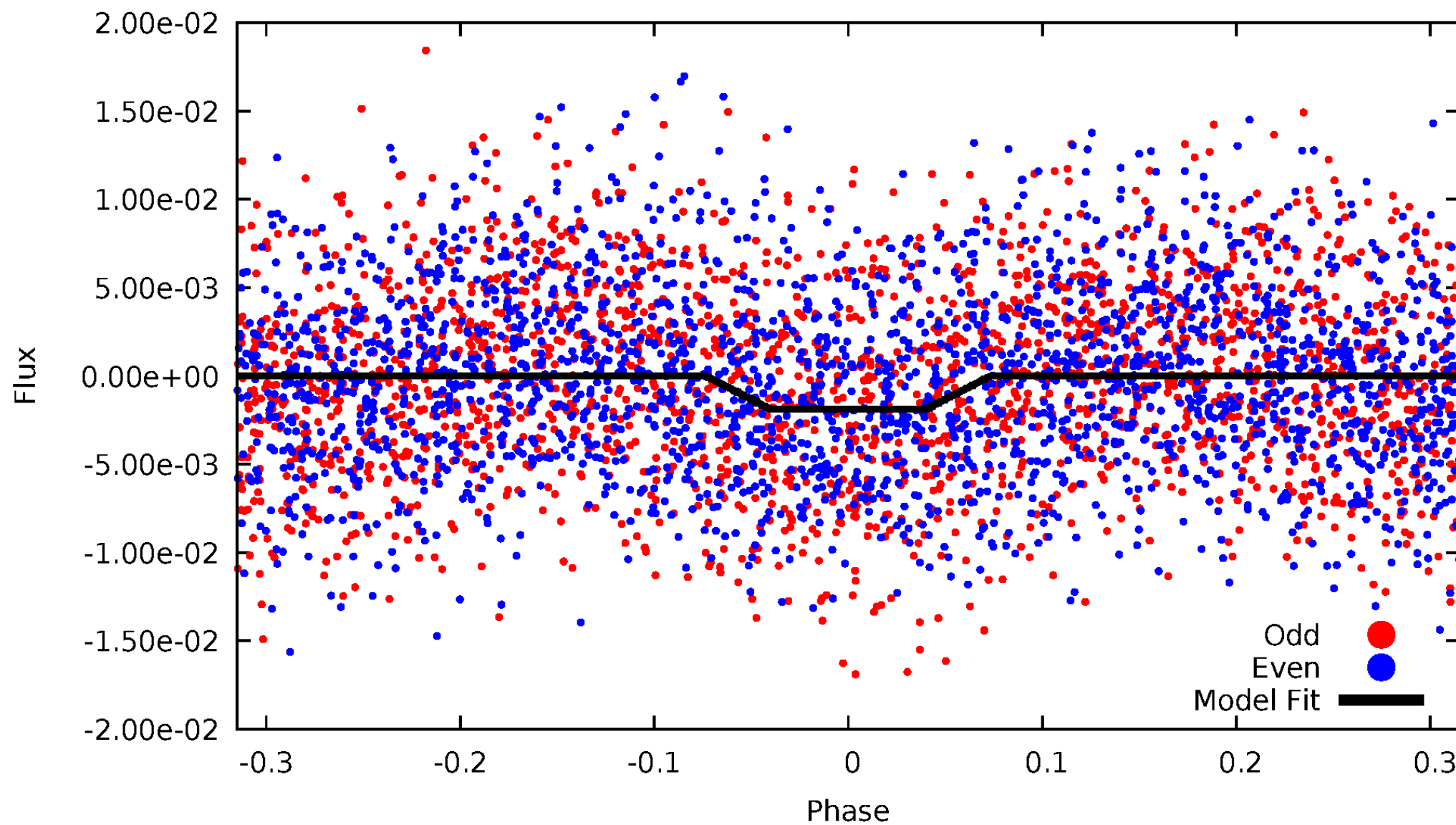
DV Odd/Even

TCE 005459805-03



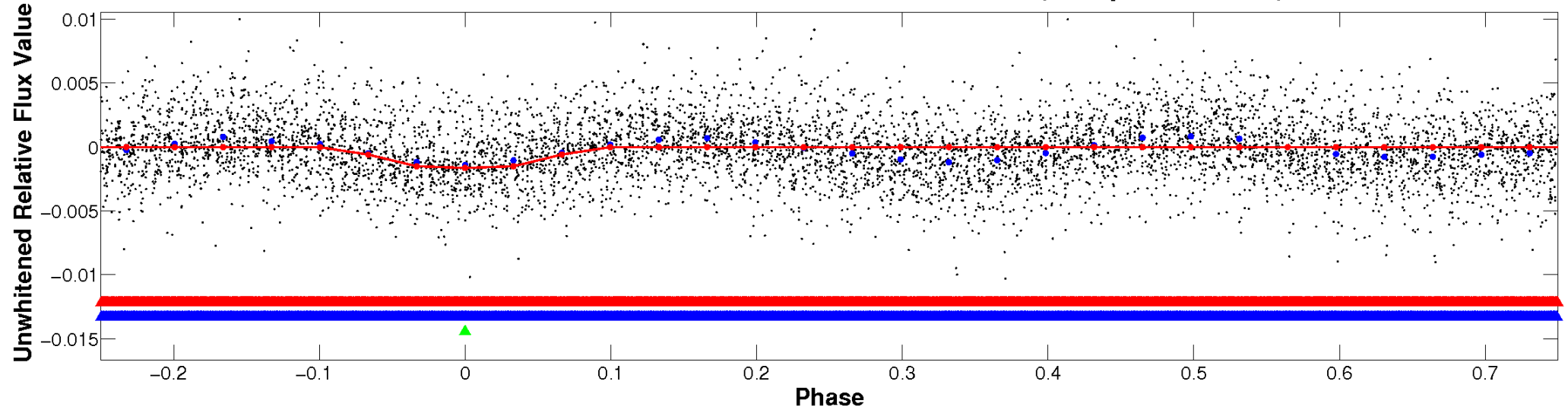
ALT Odd/Even

TCE 005459805-03

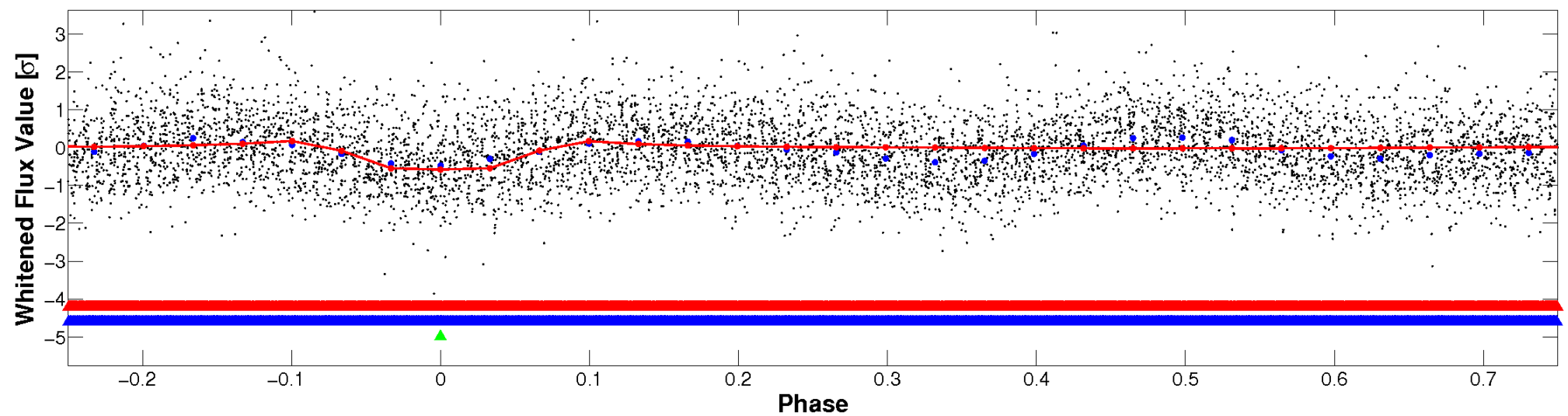


Non-Whitened Vs. Whitened Light Curve

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

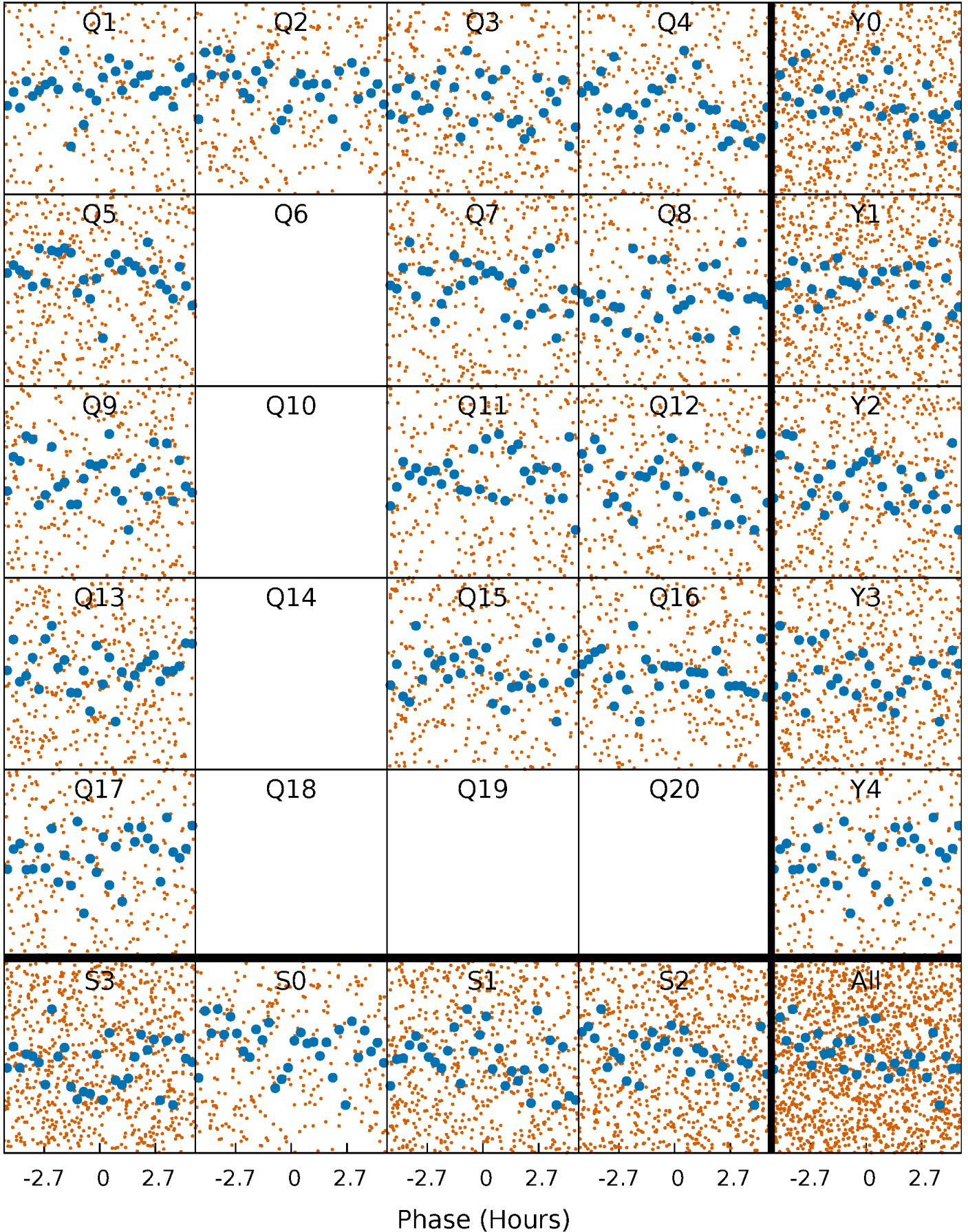


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



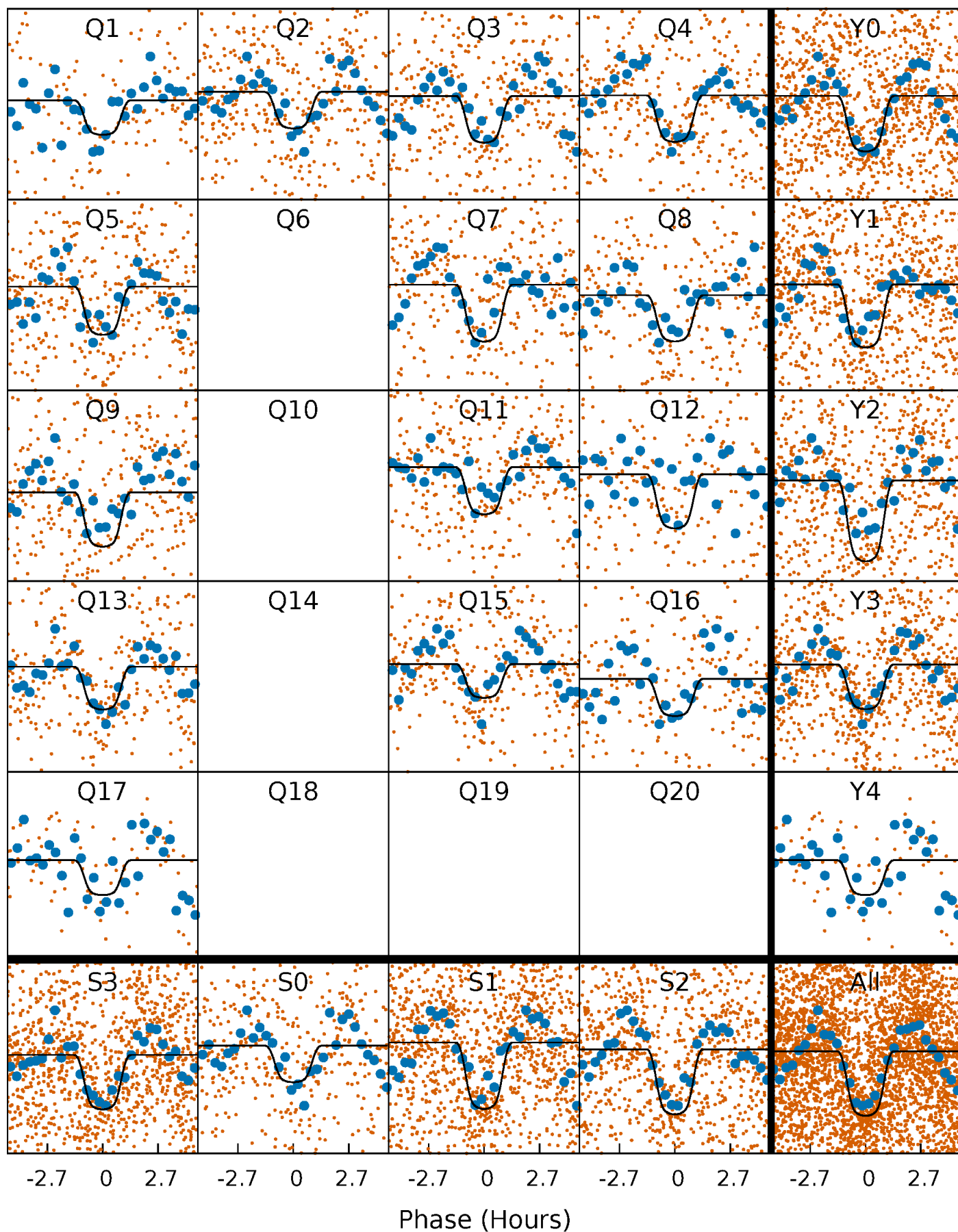
PDC Quarter-Phased Transit Curves

TCE 005459805-03 P= 0.615412 Days $T_0=131.953026$ (BKJD)



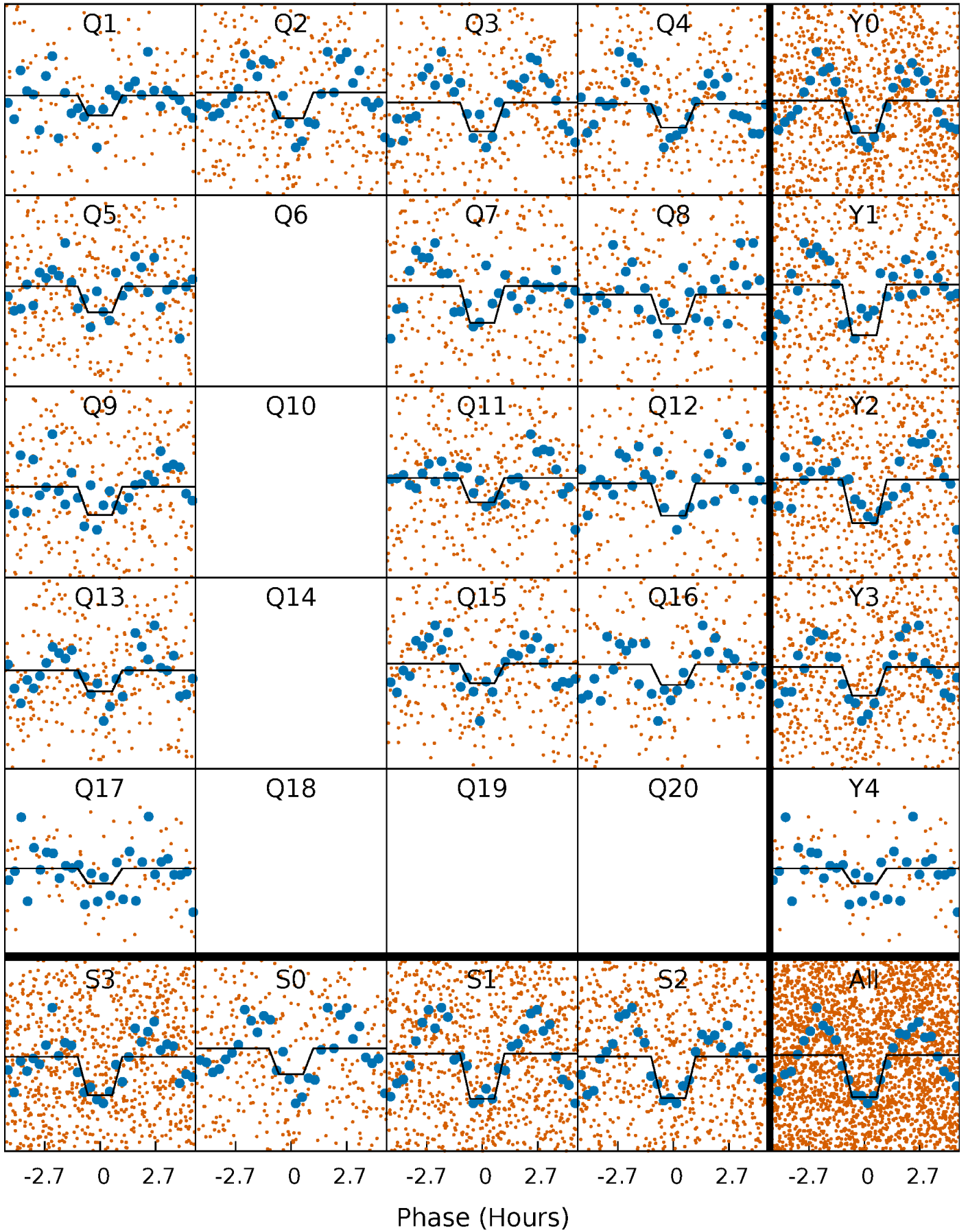
DV Quarter-Phased Transit Curves

TCE 005459805-03 P= 0.615412 Days $T_0=131.953026$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

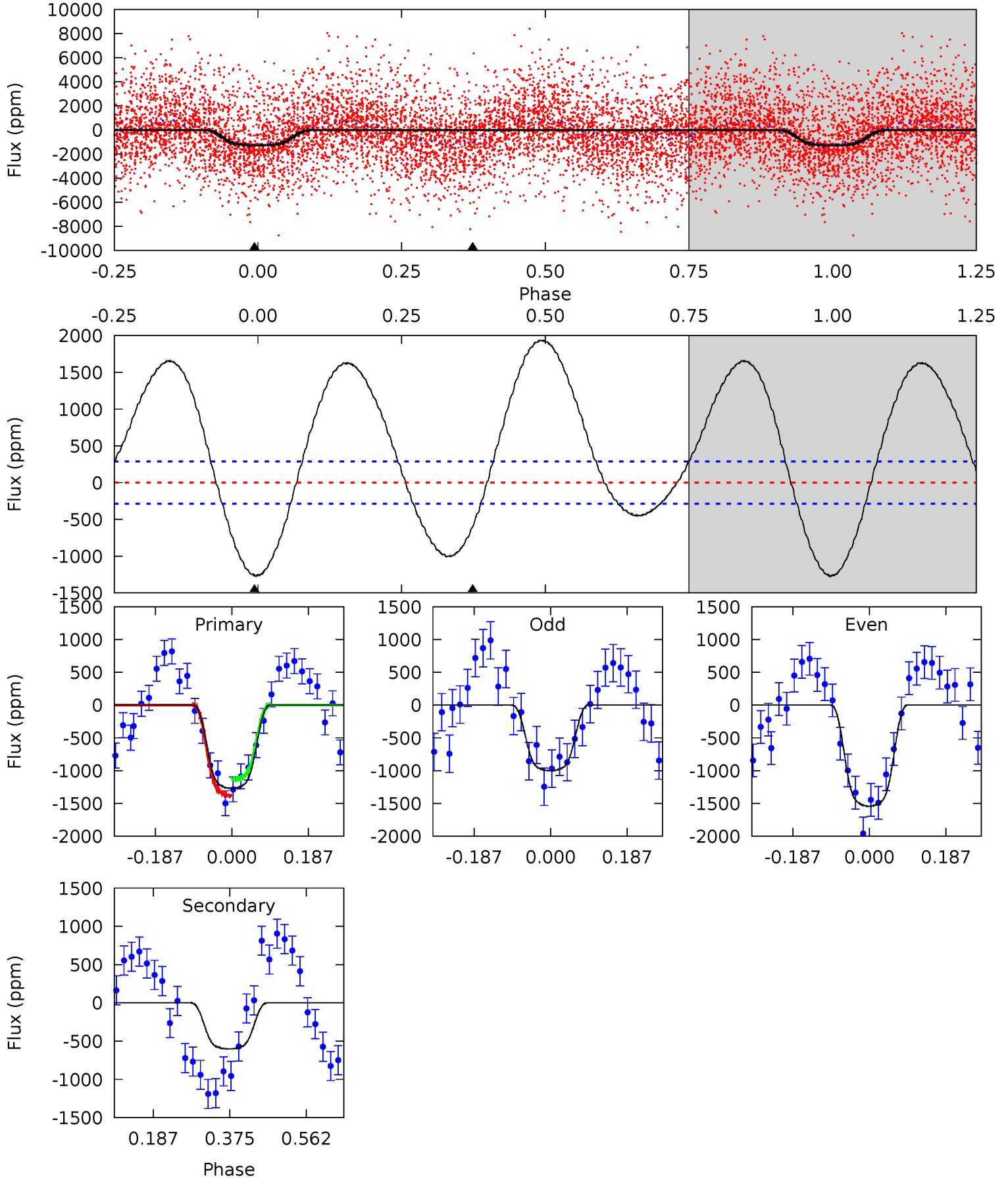
TCE 005459805-03 P= 0.615411 Days $T_0=131.953027$ (BKJD)



DV Model-Shift Uniqueness Test

005459805-03, P = 0.615412 Days, E = 131.337614 Days

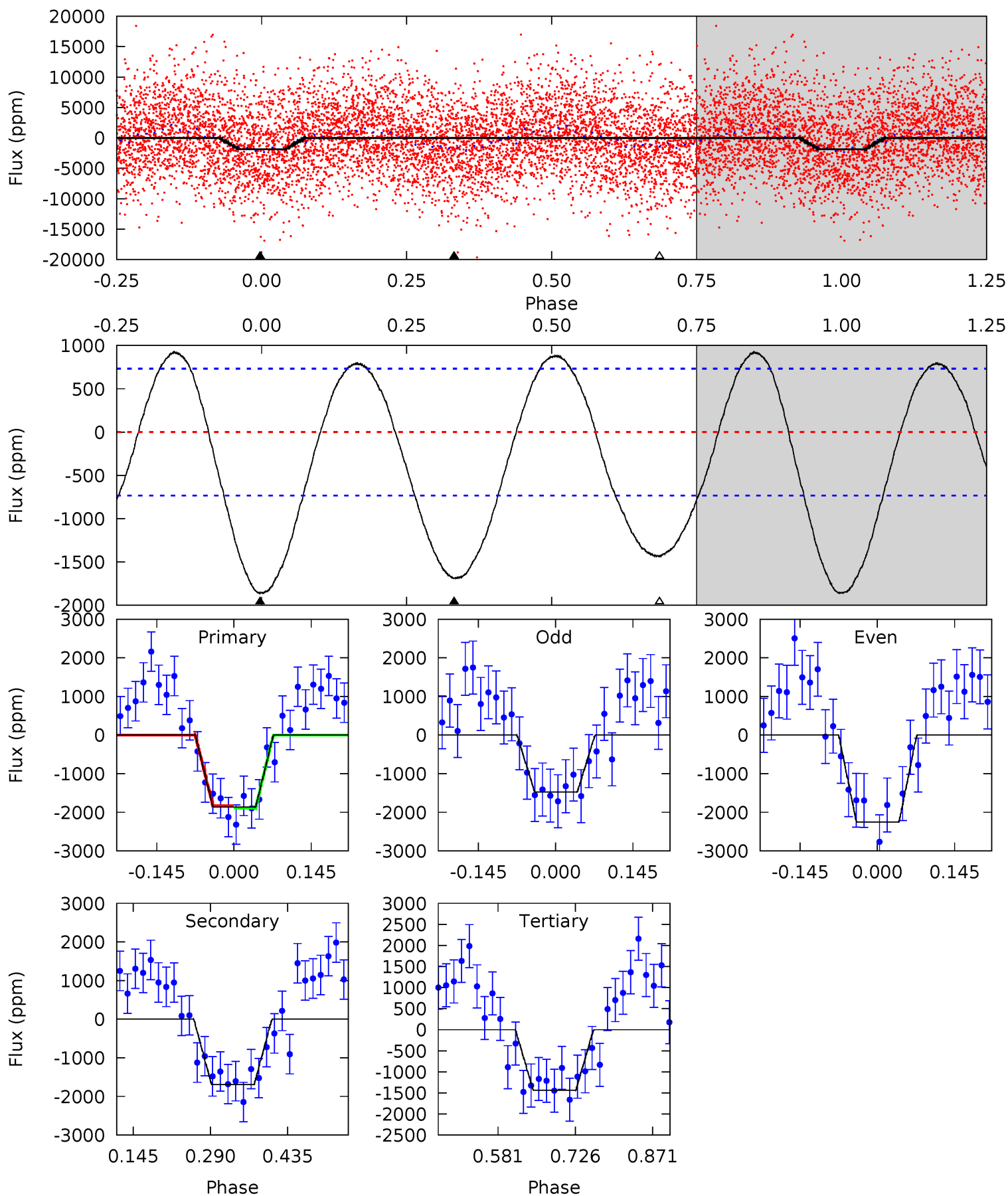
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.6	9.28	0	0	4.43	1.32	8.26	19.6	19.6	9.28	9.28	4.24	0.75	0.60	1.92



Alt Model-Shift Uniqueness Test

005459805-03, P = 0.615411 Days, E = 131.337616 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
11.4	10.4	8.81	0	4.49	1.46	5.31	2.60	11.4	1.55	10.4	2.39	0.83	0.33	0.17



Stellar Parameters For KIC 005459805

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6981^{+194}_{-291}	$4.242^{+0.101}_{-0.203}$	$-0.100^{+0.250}_{-0.350}$	$1.468^{+0.487}_{-0.225}$	$1.378^{+0.202}_{-0.222}$	$0.614^{+0.290}_{-0.311}$
	+3%/-4%	+2%/-5%	+250%/-350%	+33%/-15%	+15%/-16%	+47%/-51%
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 005459805-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-602 ± 65	$7.08^{+1.20}_{-0.86}$	4196^{+323}_{-259}	5000^{+283}_{-254}	$1.569^{+0.536}_{-0.381}$
Alt.	-1690 ± 163	$7.05^{+1.34}_{-0.82}$	4217^{+329}_{-261}	6633^{+410}_{-366}	$4.495^{+1.331}_{-1.245}$

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 $T_{\text{obs}} \gg T_{\text{max}}$ AND $A_{\text{obs}} \gg 1.0$

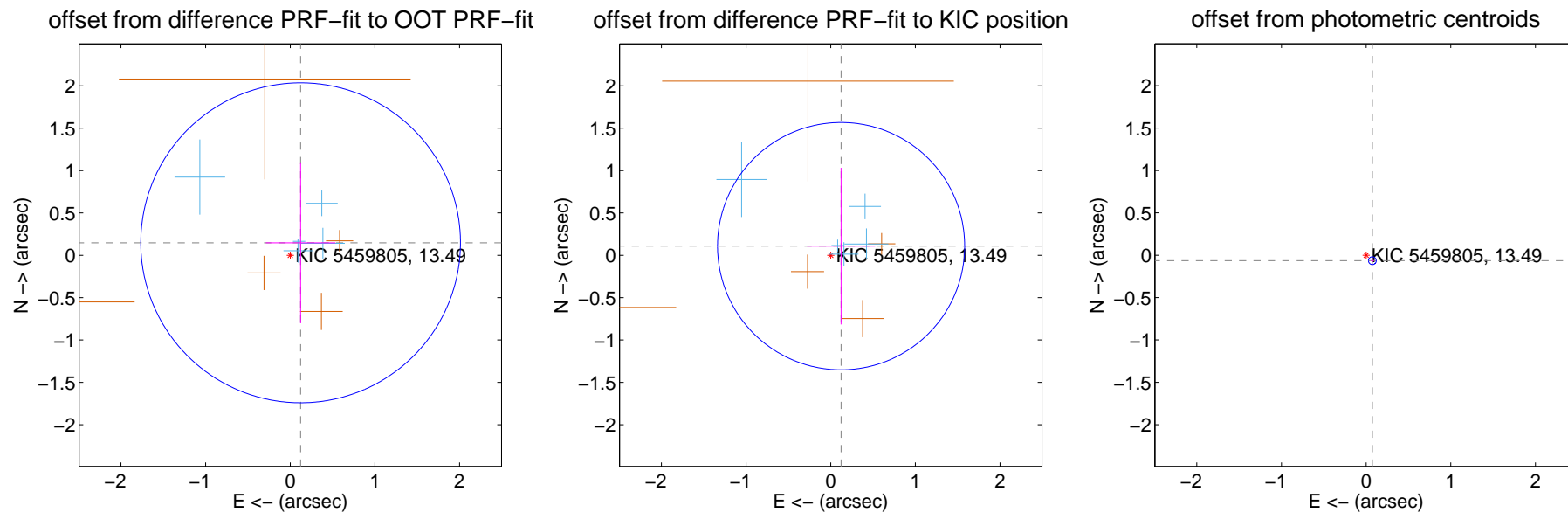
DV Centroid Data

Supplemental centroid analysis for 005459805-03. Kepler magnitude: 13.49. Transit SNR 15.51

There are 5 quarters with good PRF difference image offsets

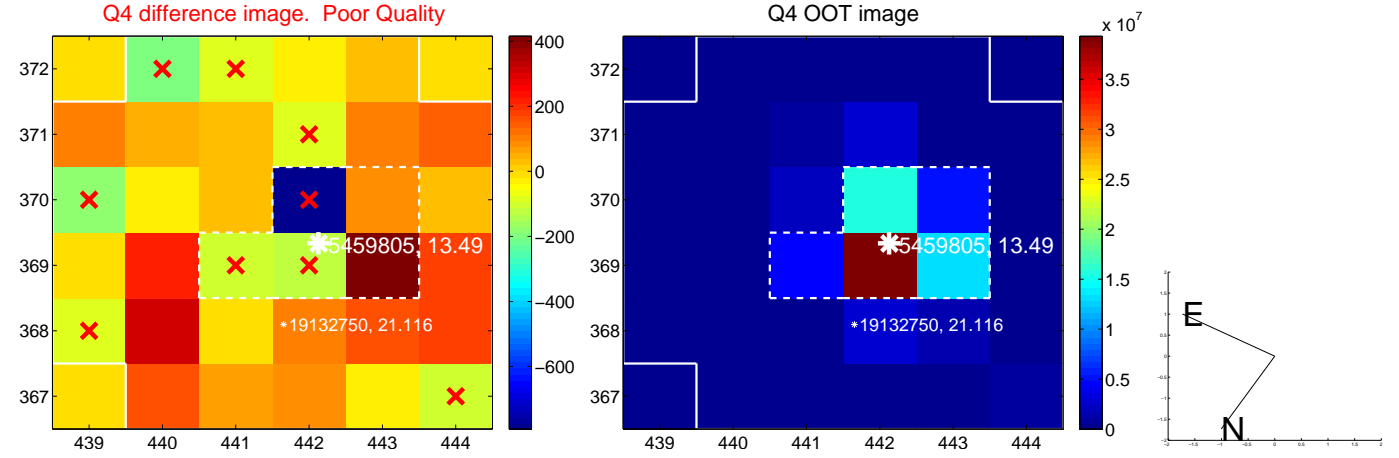
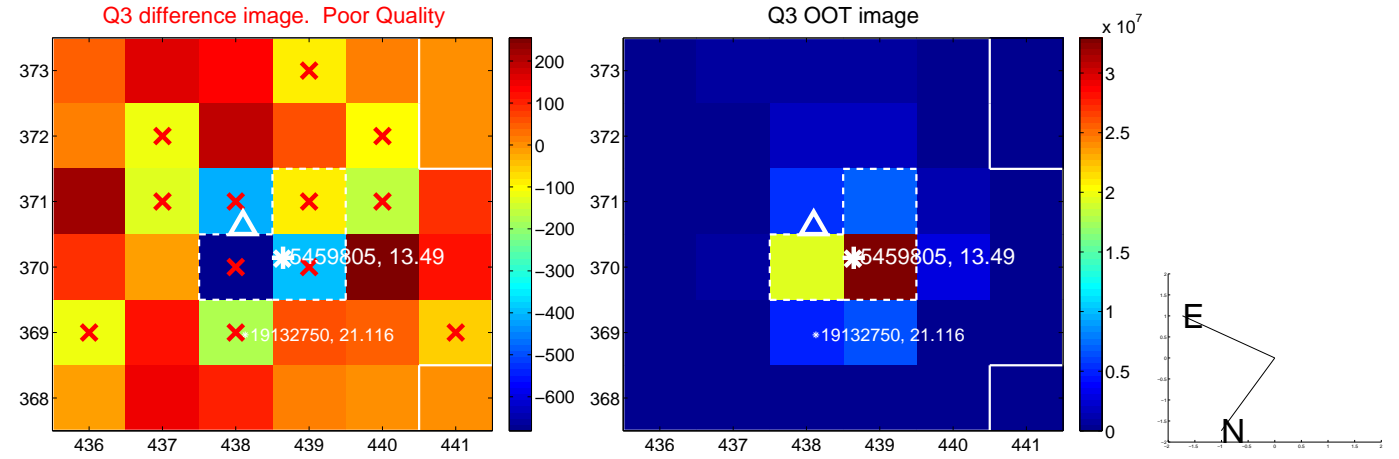
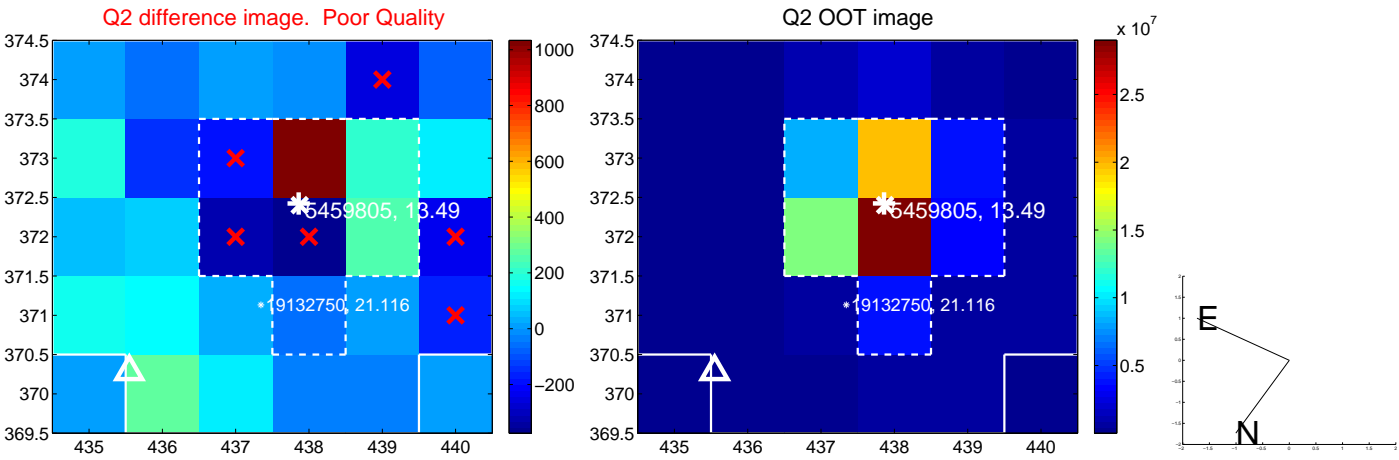
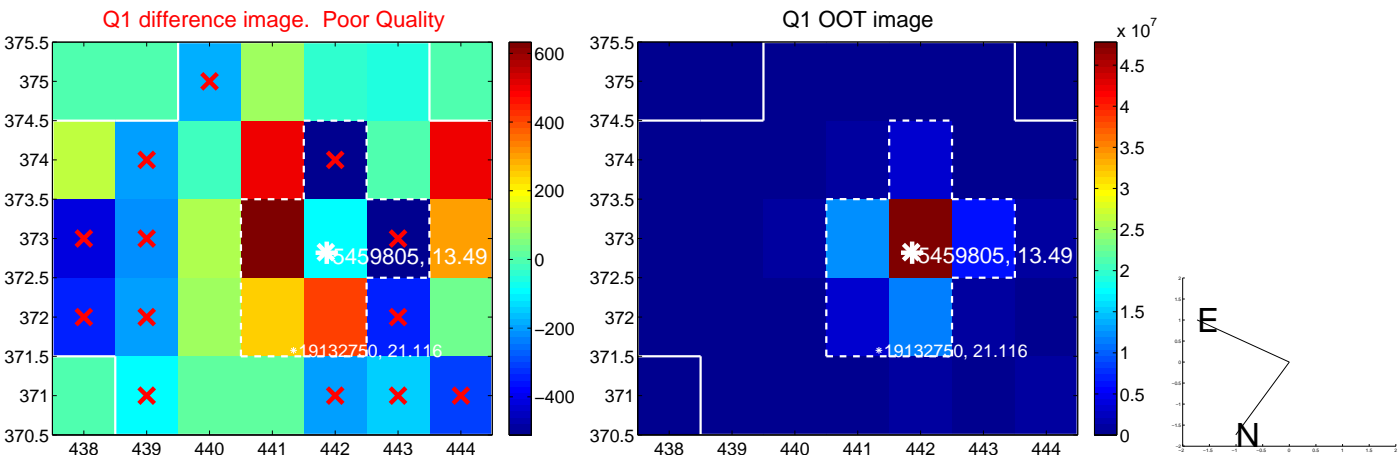
The direct PRF centroid is offset from the target star catalog position by about 0.04 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.191 ± 0.629	0.30	-0.122 ± 0.411	0.147 ± 0.949
PRF-fit source offset from KIC position	0.163 ± 0.487	0.34	-0.123 ± 0.402	0.108 ± 0.925
photometric centroid source offset	0.10 ± 0.02	6.40	-0.07 ± 0.02	-0.06 ± 0.02

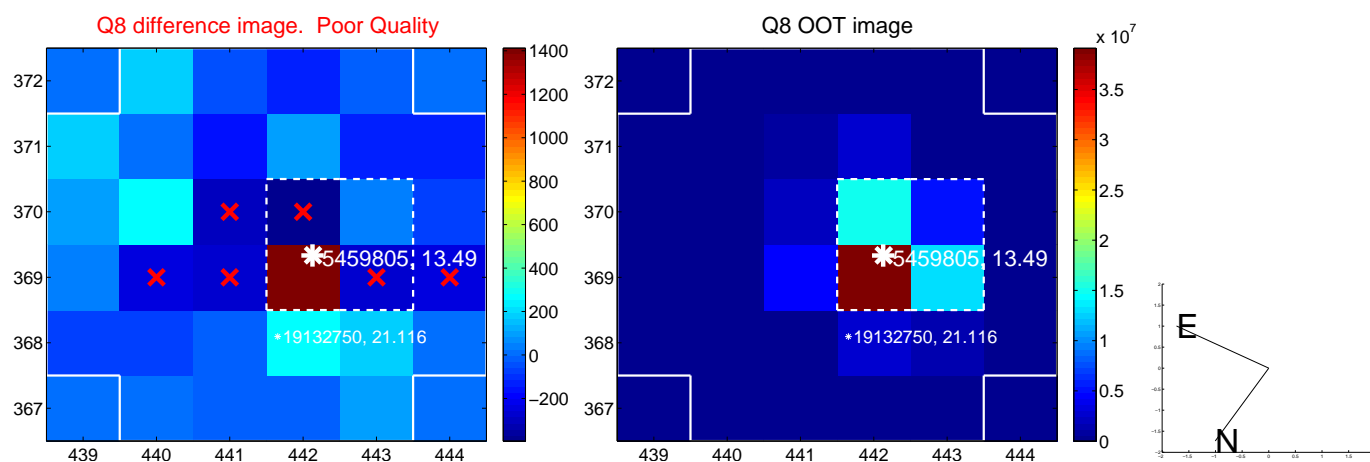
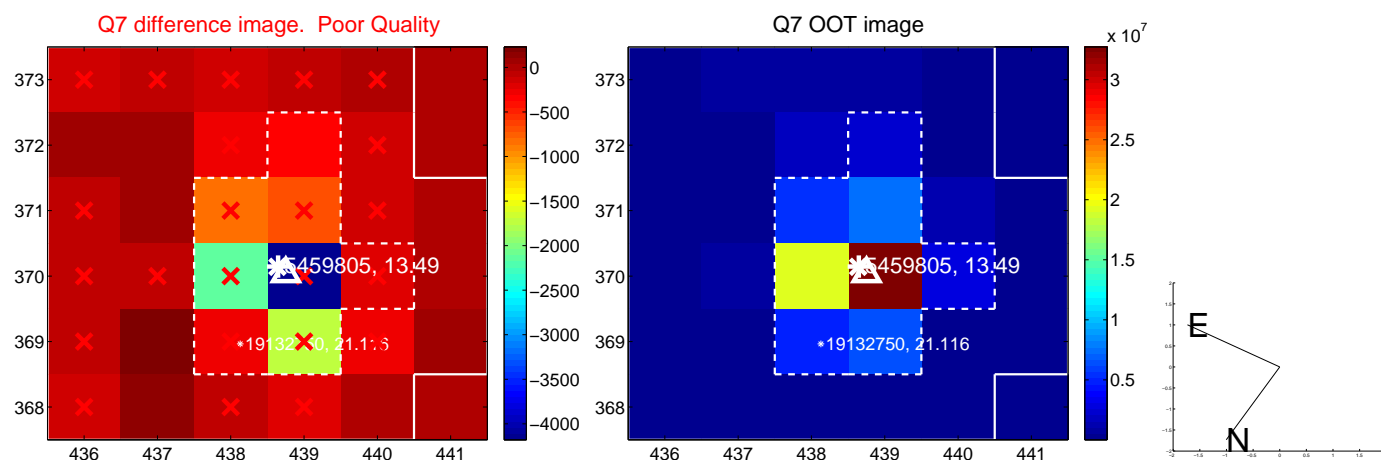
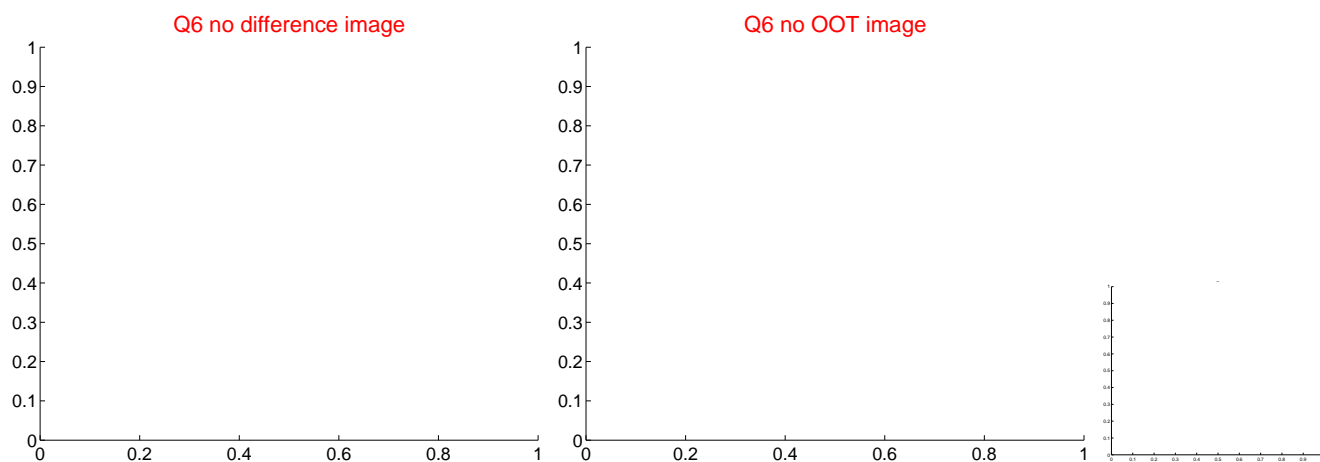
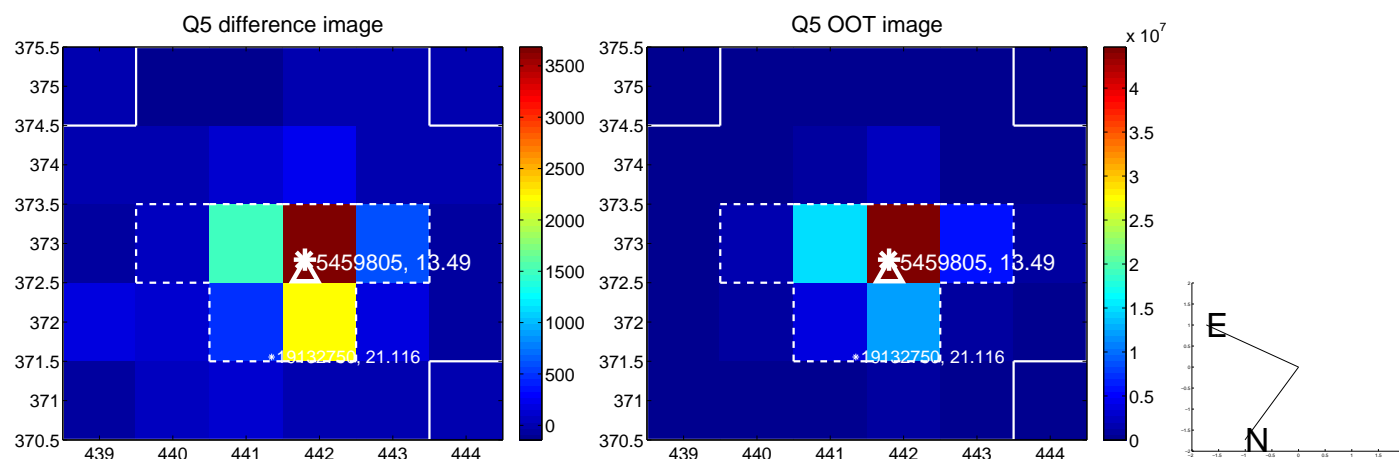


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets**; **Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three- σ . 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.

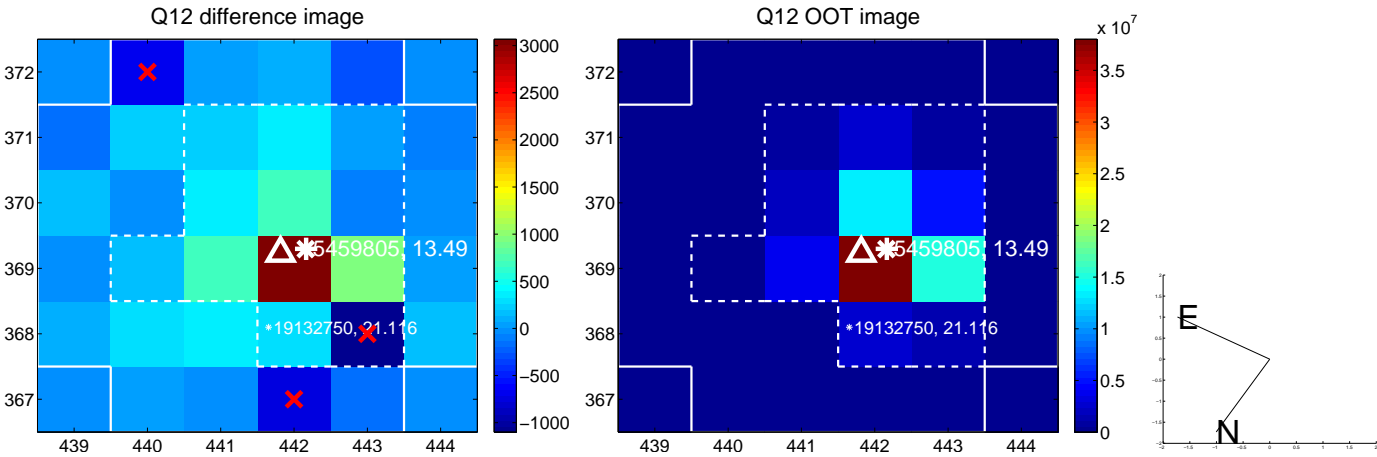
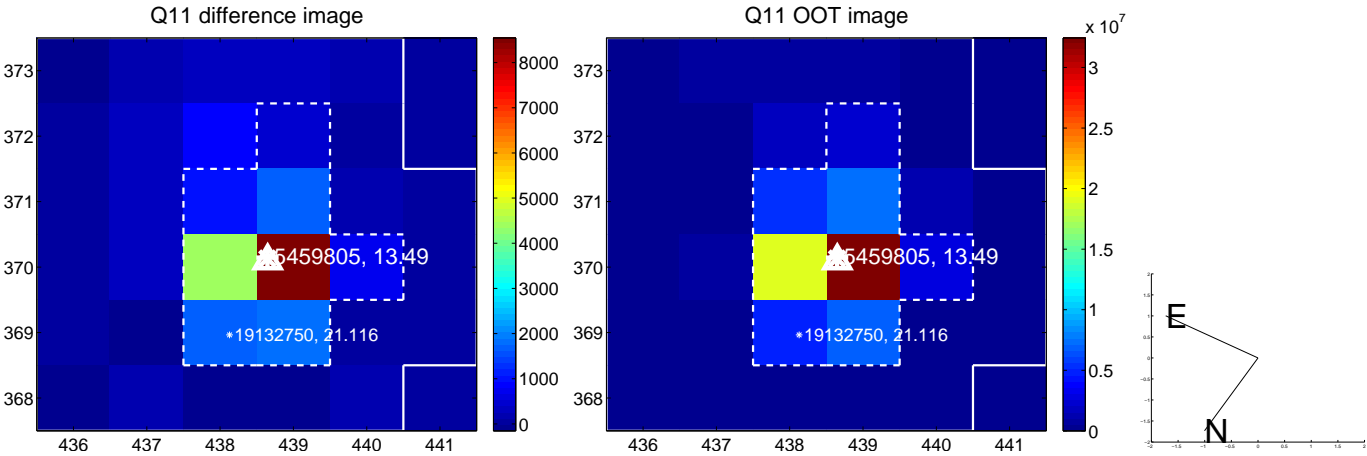
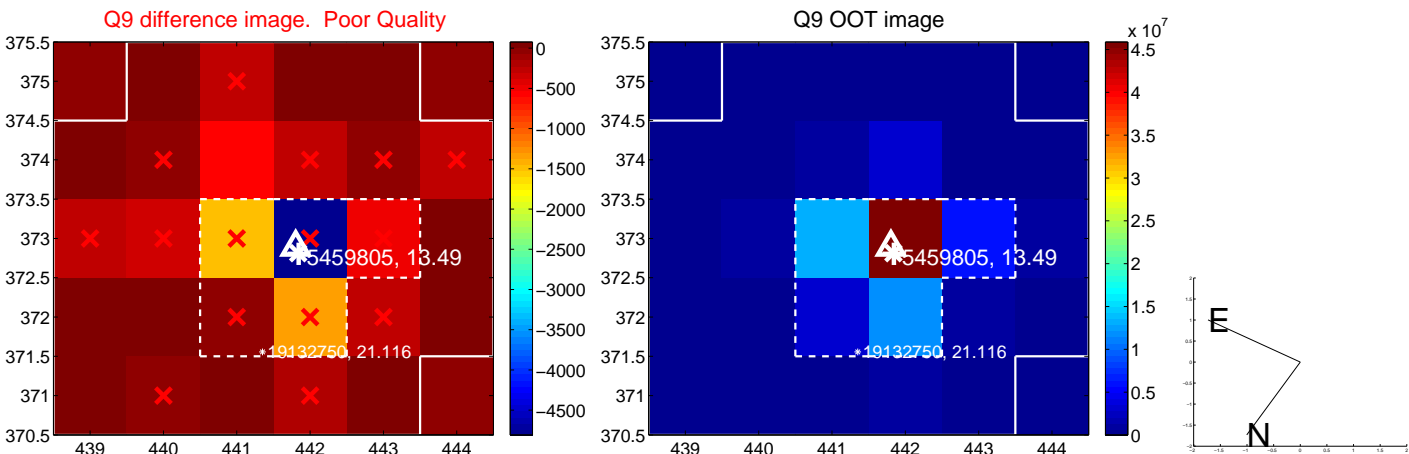
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



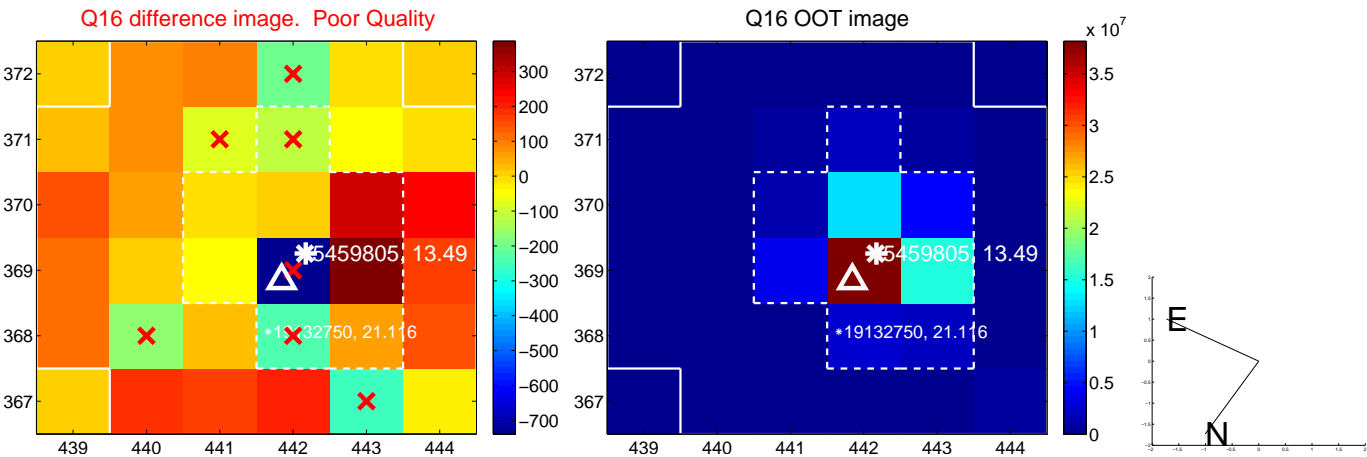
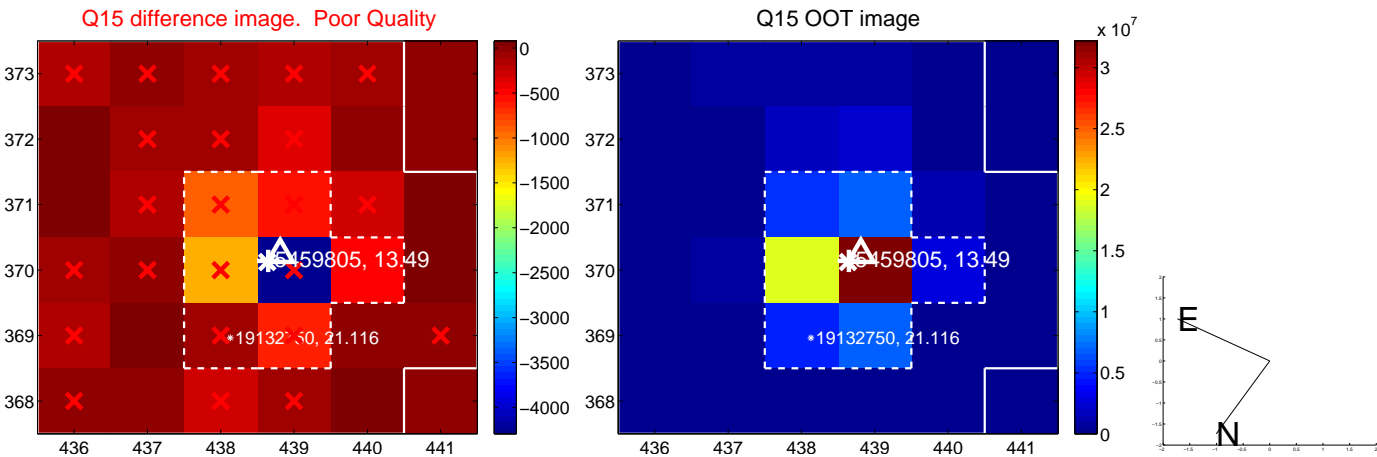
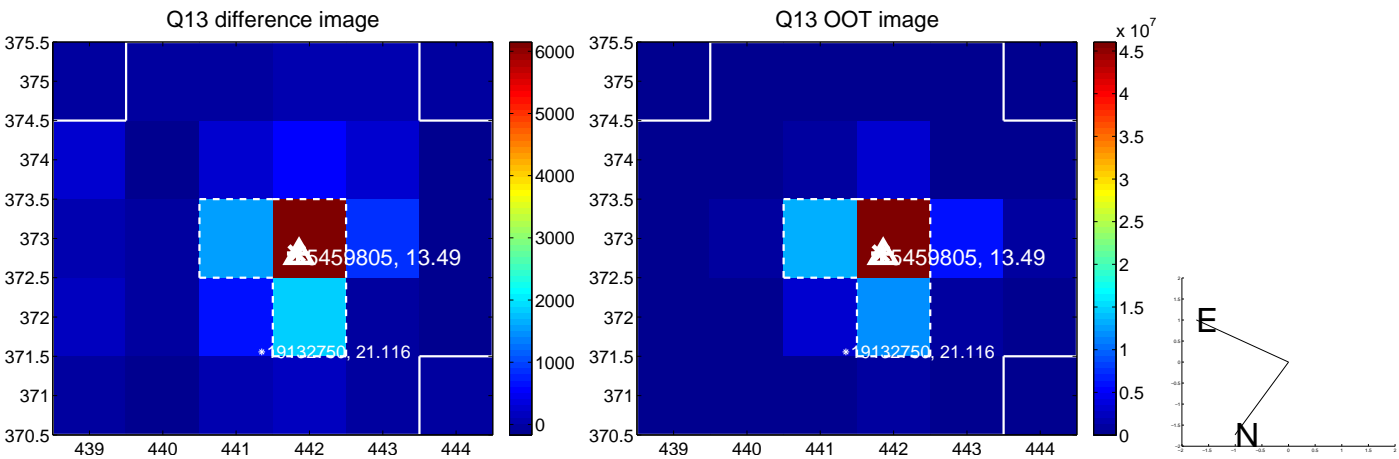
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



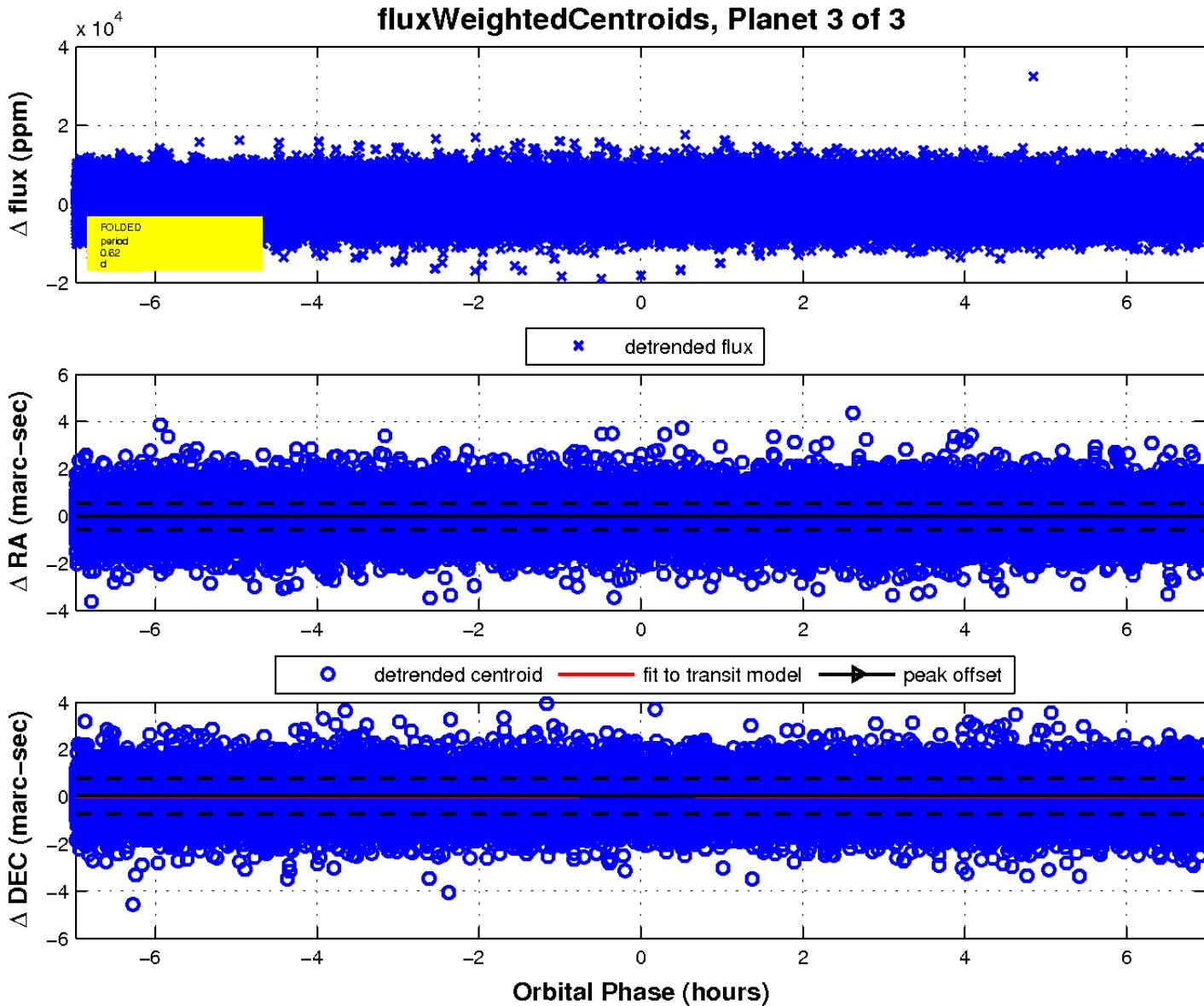
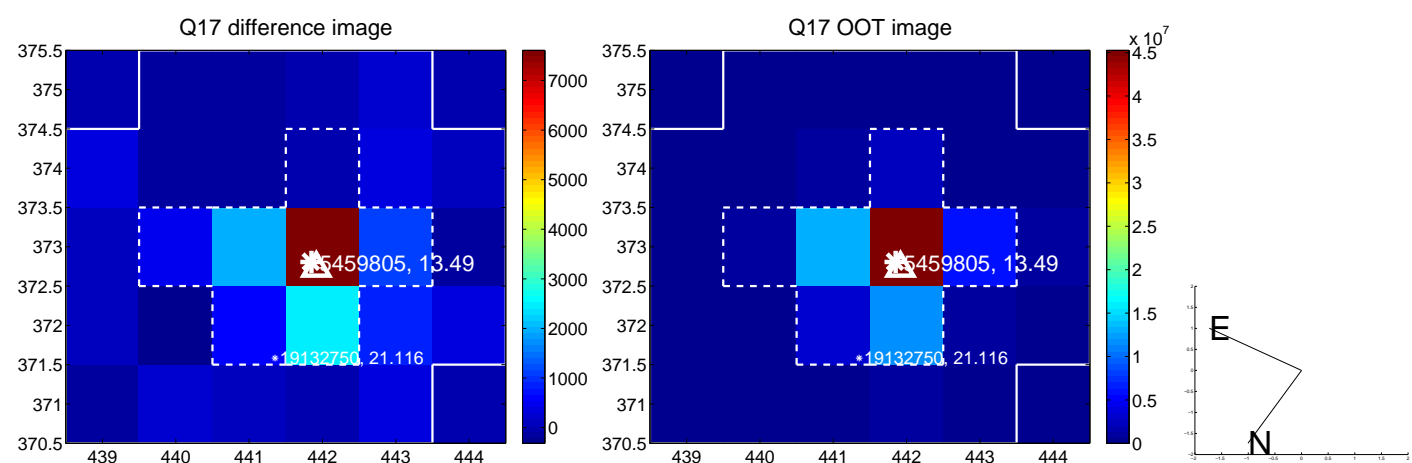
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

