

KIC 005475187

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})
005475187-01	OBS	No	0.831942	132.303686	195.4	2.737	12.4	9.3	1.37	6890	2.24	10094.72
005475187-02	OBS	No	0.831950	131.890929	227.1	2.330	13.3	10.0	1.37	6890	2.41	10094.59
005475187-03	OBS	No	4.227360	132.877600	1457.0	3.442	8.7	9.3	1.37	6890	9.41	1155.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475187-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005475187-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005475187-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—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.

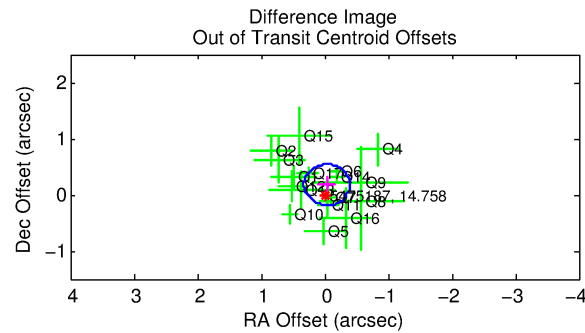
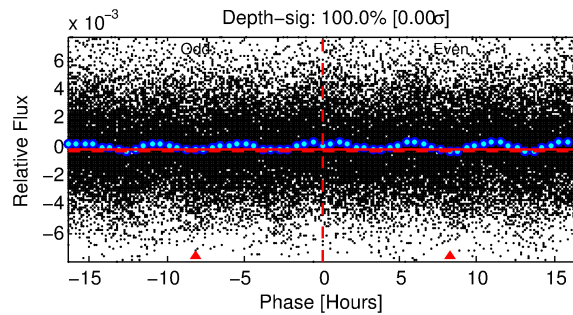
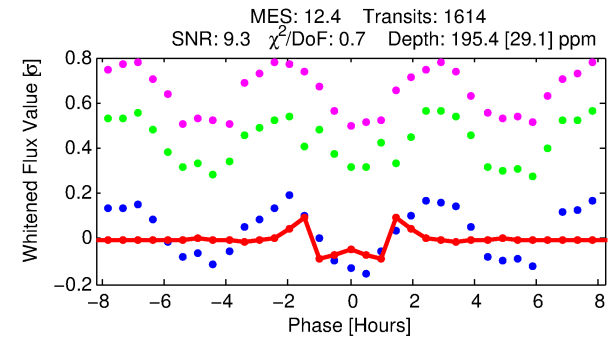
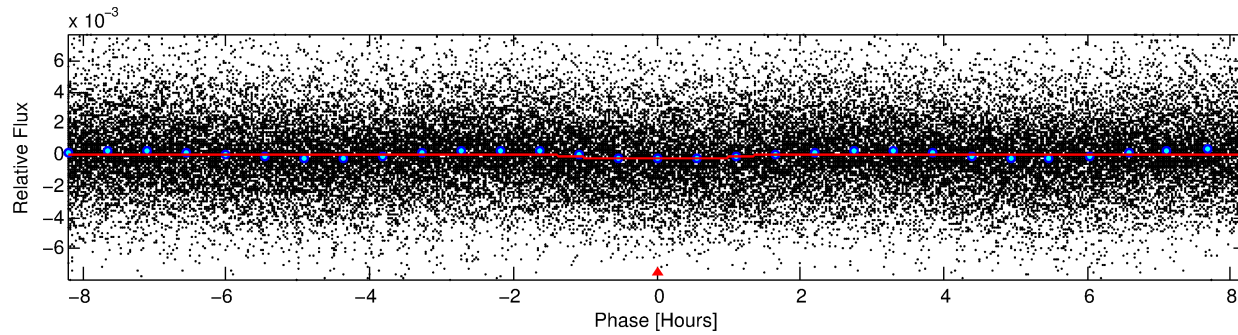
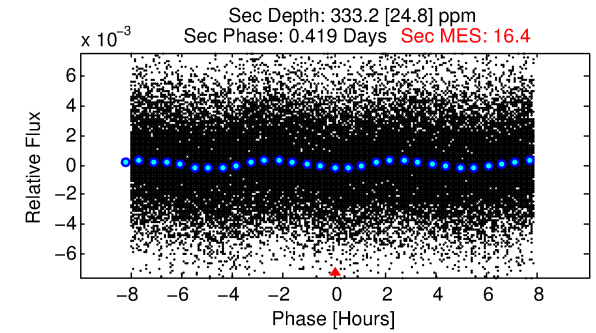
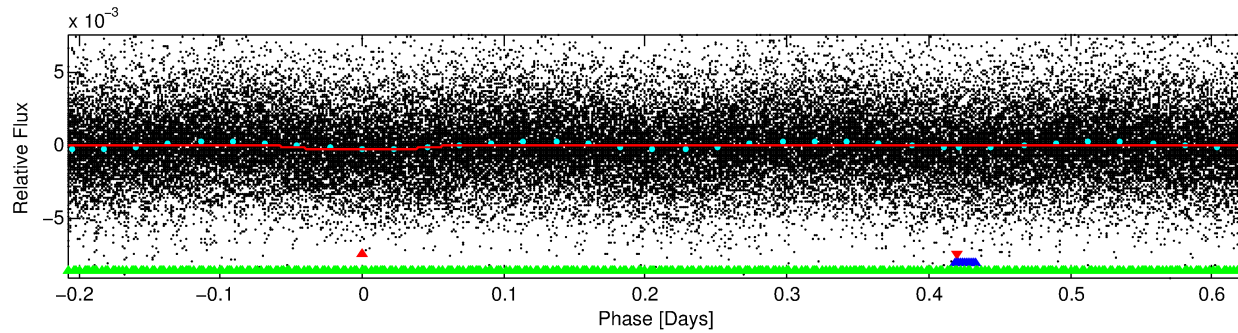
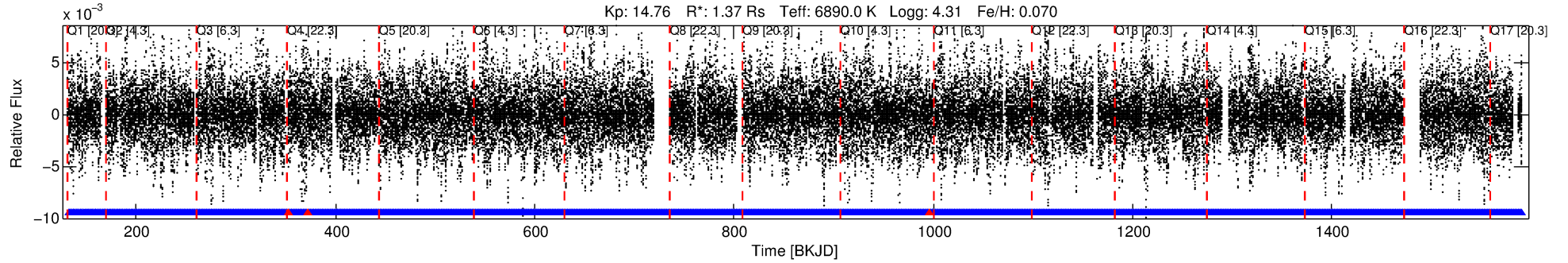
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475187-01

No Significant Match Found

DV One-Page Summary

KIC: 5475187 Candidate: 1 of 3 Period: 0.832 d



DV Fit Results:

Period = 0.83194 [0.00001] d
Epoch = 132.3037 [0.0013] BKJD
Rp/R* = 0.0149 [0.0027]
a/R* = 1.44 [0.65]
b = 0.90 [0.19]
Seff = 10094.72 [3712.05]
Teq = 2556 [235] K
Rp = 2.24 [0.73] Re
a = 0.0194 [0.0043] AU
Ag = 13.83 [6.69] [1.92σ]
Teffp = 7620 [785] K [6.18σ]

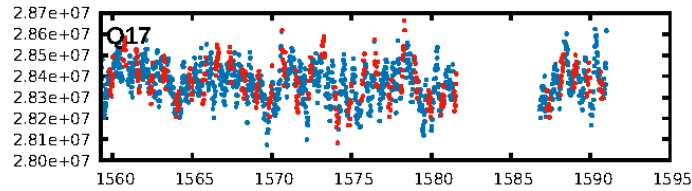
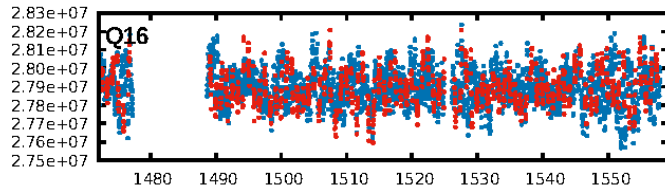
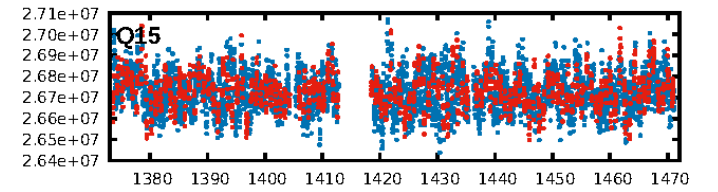
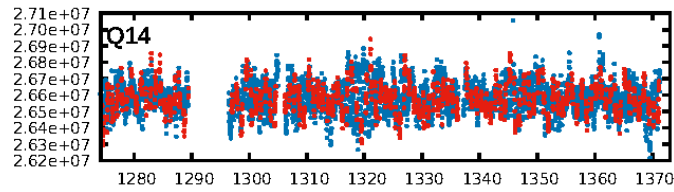
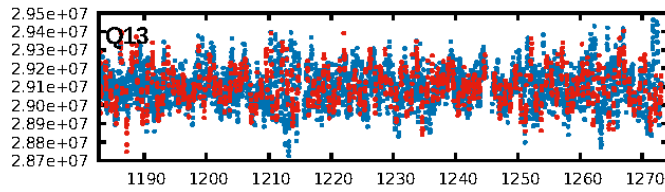
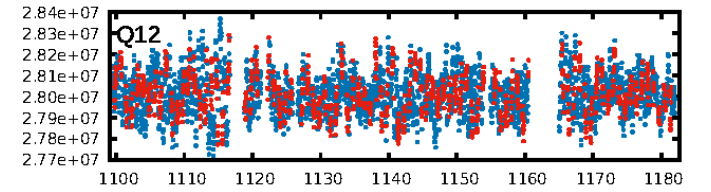
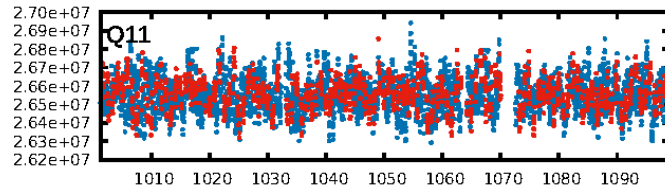
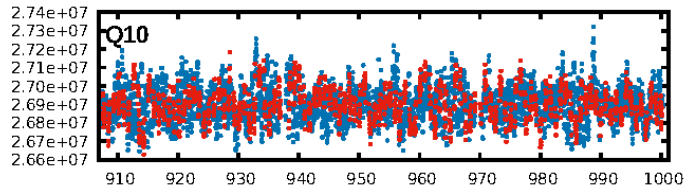
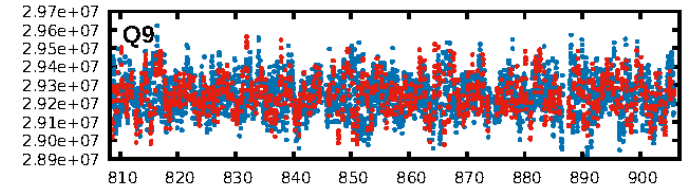
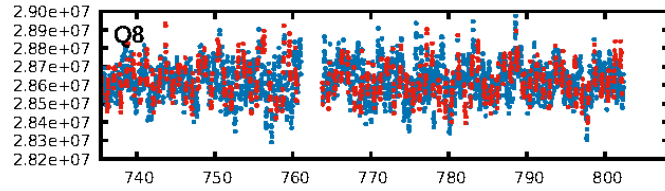
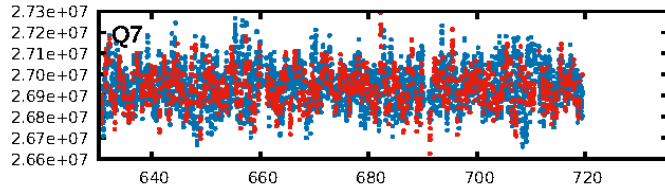
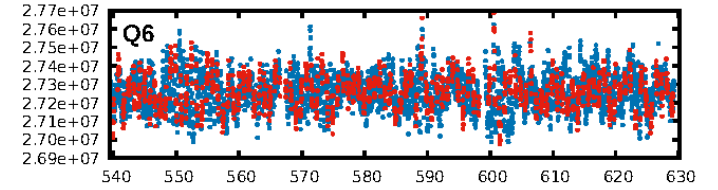
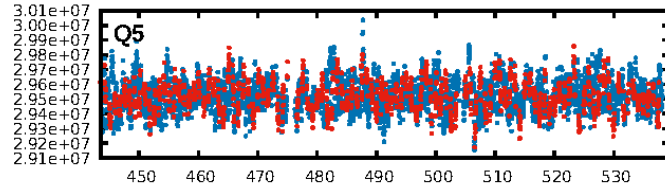
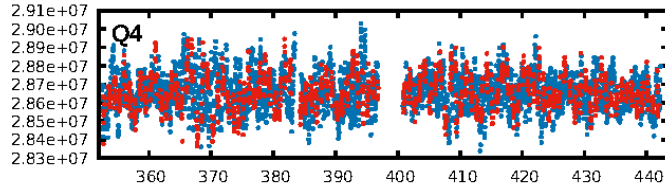
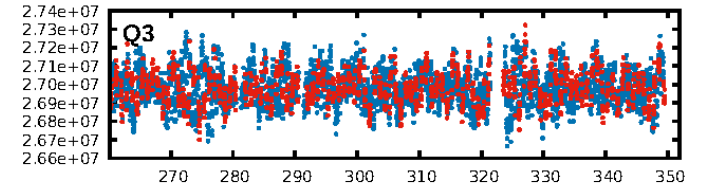
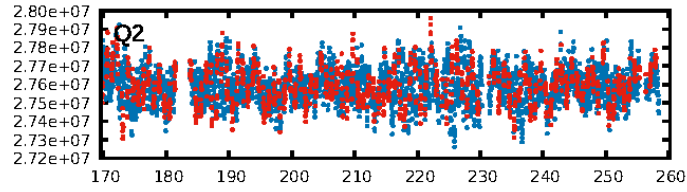
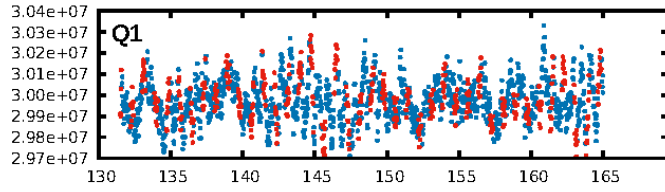
DV Diagnostic Results:

ShortPeriod-sig: N/A
LongPeriod-sig: 0.0% [0.00σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 7.81e-20
RollingBand-fgt: 1.00 [1538/1541]
GhostDiagnostic-chr: 0.8998
Centroid-sig: 1.7%
Centroid-so: 0.357 arcsec [0.81σ]
OotOffset-rm: 0.182 arcsec [1.50σ]
OotOffset-st: 4/4/4/5 [17]
KicOffset-rm: 0.165 arcsec [1.22σ]
KicOffset-st: 4/4/4/5 [17]
DiffImageQuality-fgm: 0.59 [10/17]
DiffImageOverlap-fno: 1.00 [17/17]

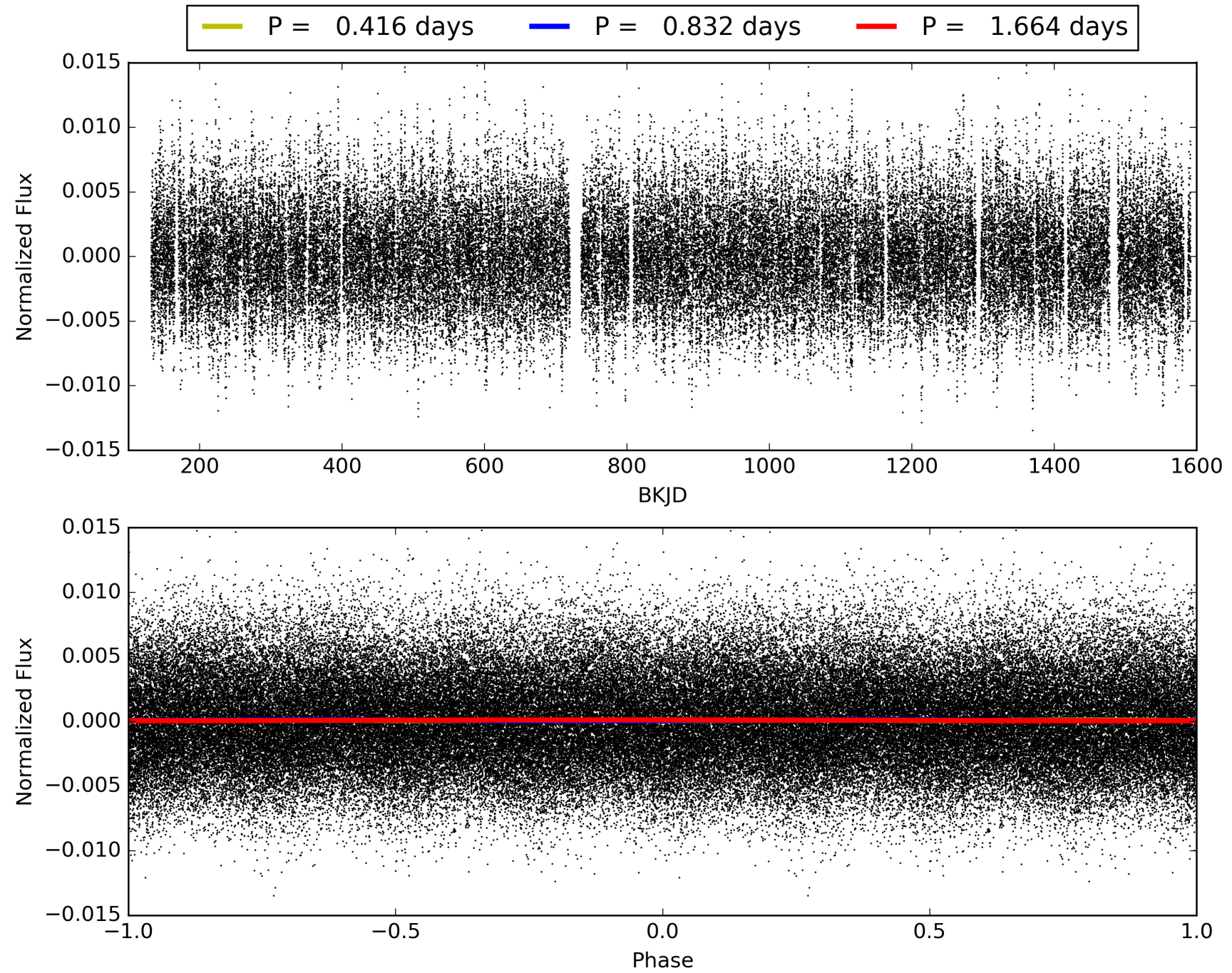
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:13:53 Z

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

TCE 005475187-01, PDC Light Curves

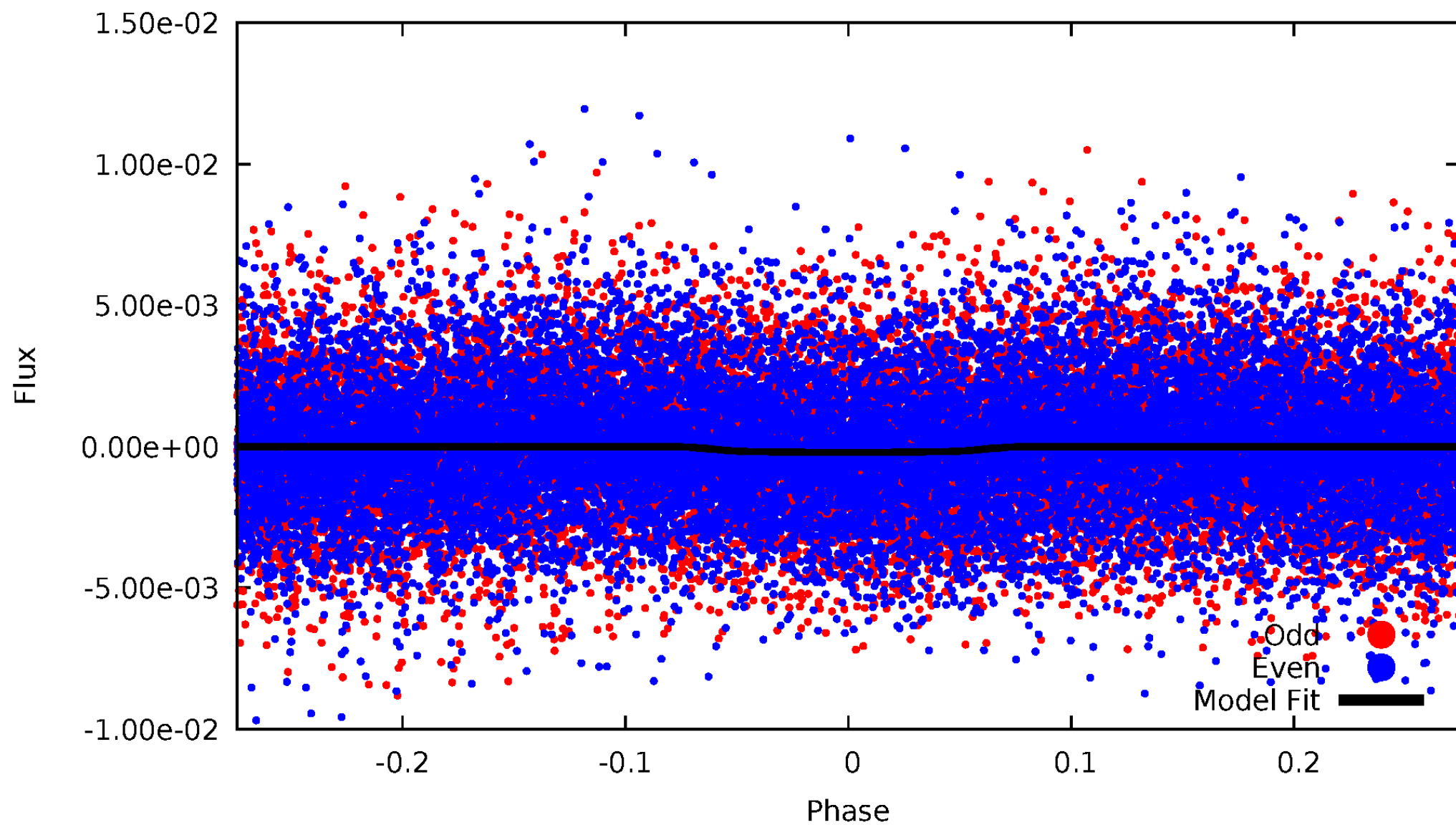


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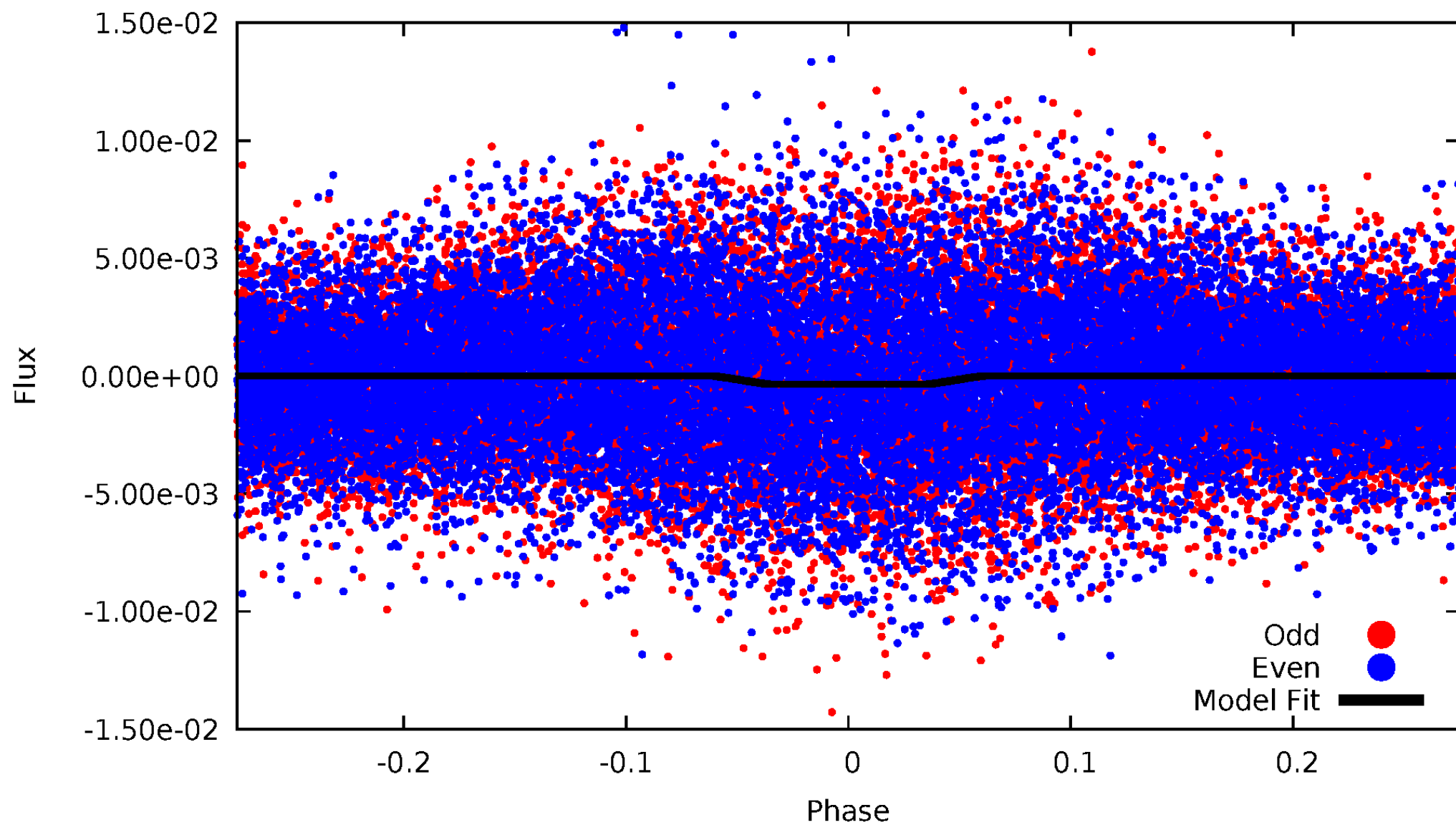
DV Odd/Even

TCE 005475187-01



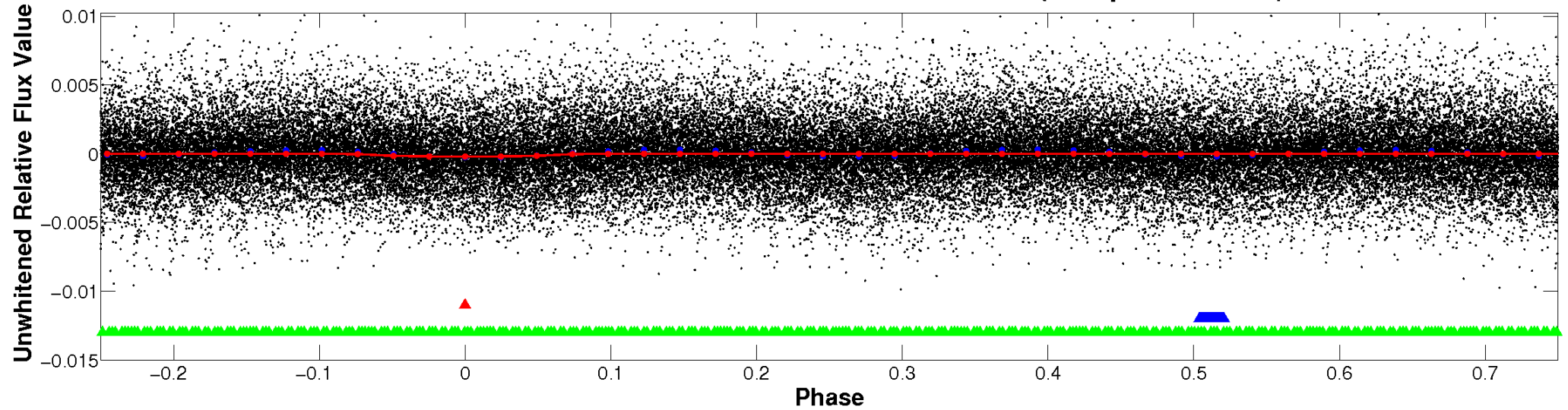
ALT Odd/Even

TCE 005475187-01

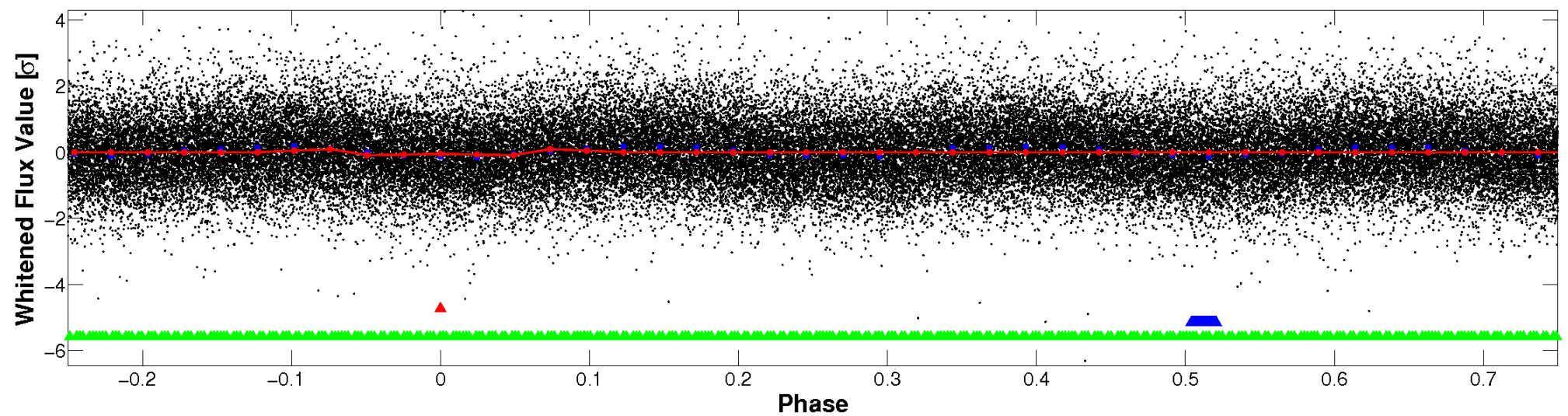


Non-Whitened Vs. Whitened Light Curve

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

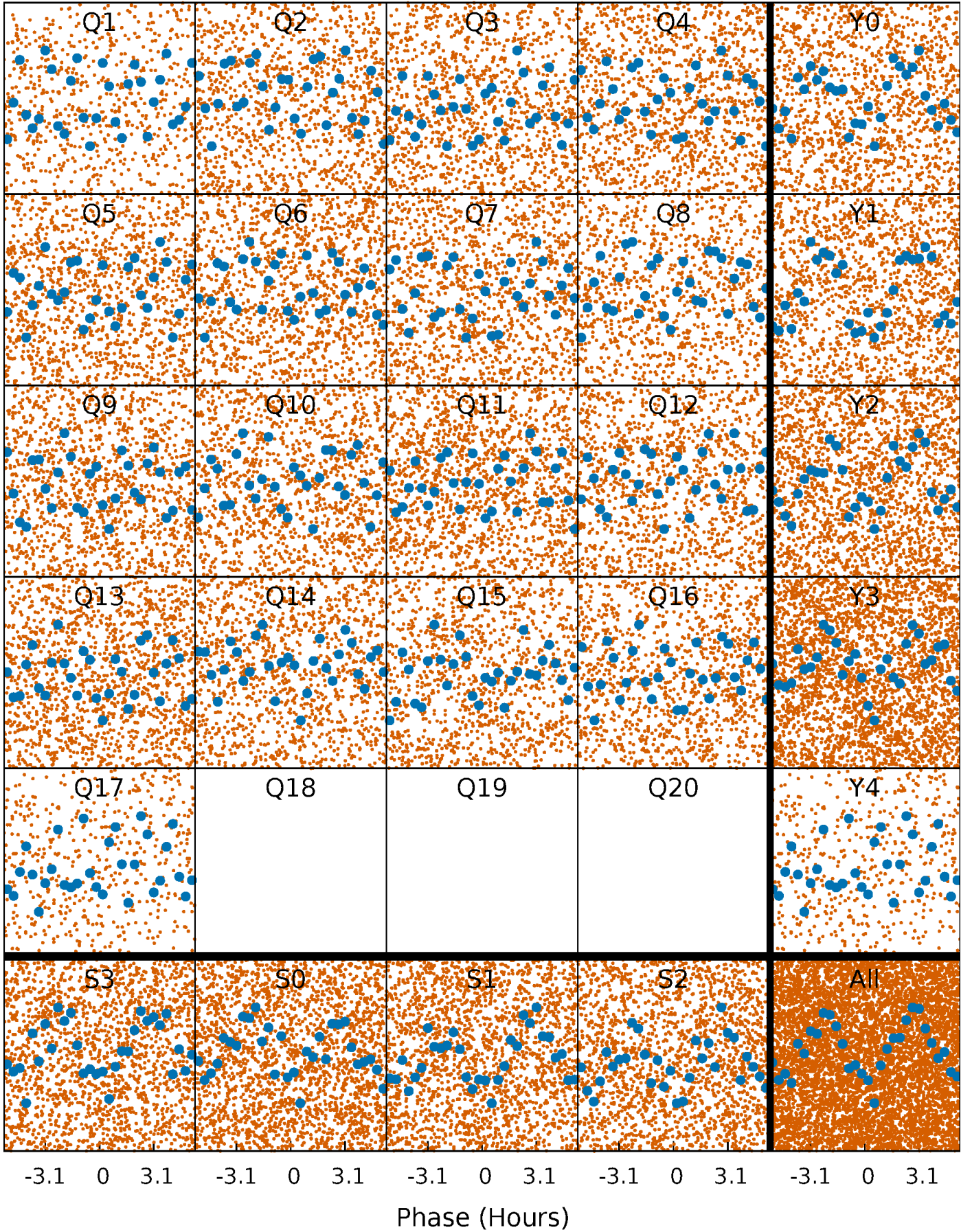


Planet 1 : Phased Whitened Flux Time Series (Fit Epoch/Period)



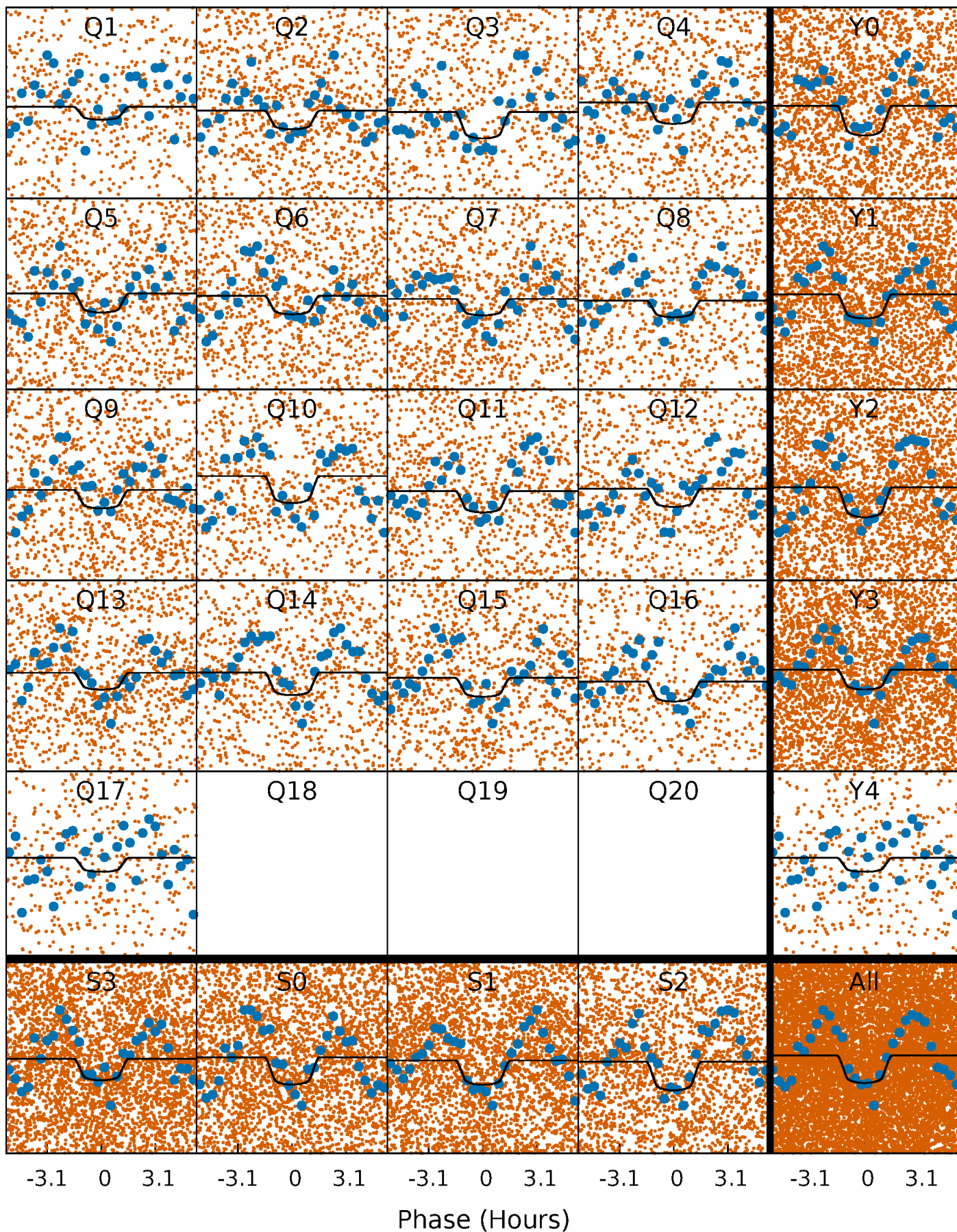
PDC Quarter-Phased Transit Curves

TCE 005475187-01 P= 0.831942 Days $T_0=132.303686$ (BKJD)



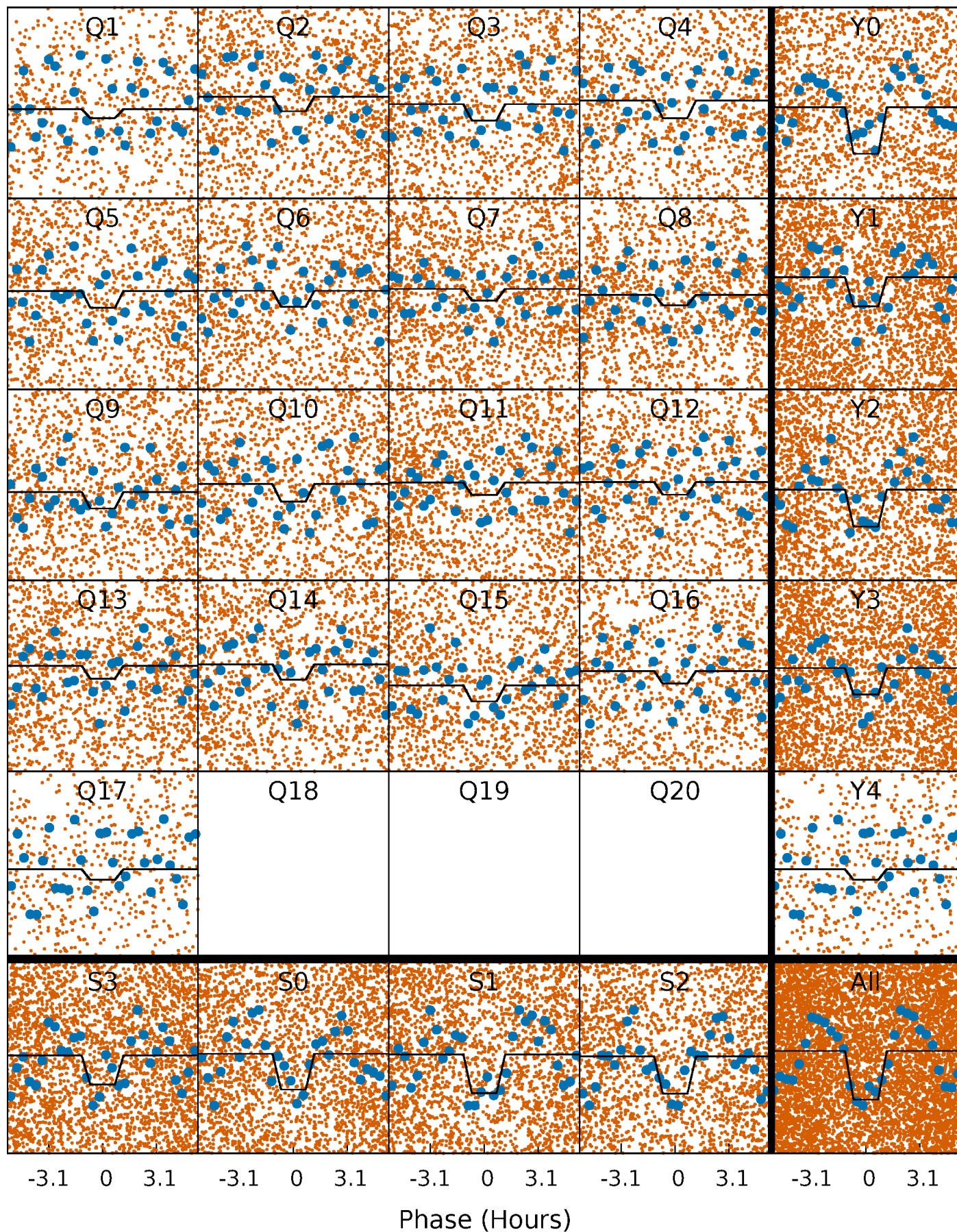
DV Quarter-Phased Transit Curves

TCE 005475187-01 P= 0.831942 Days $T_0=132.303686$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

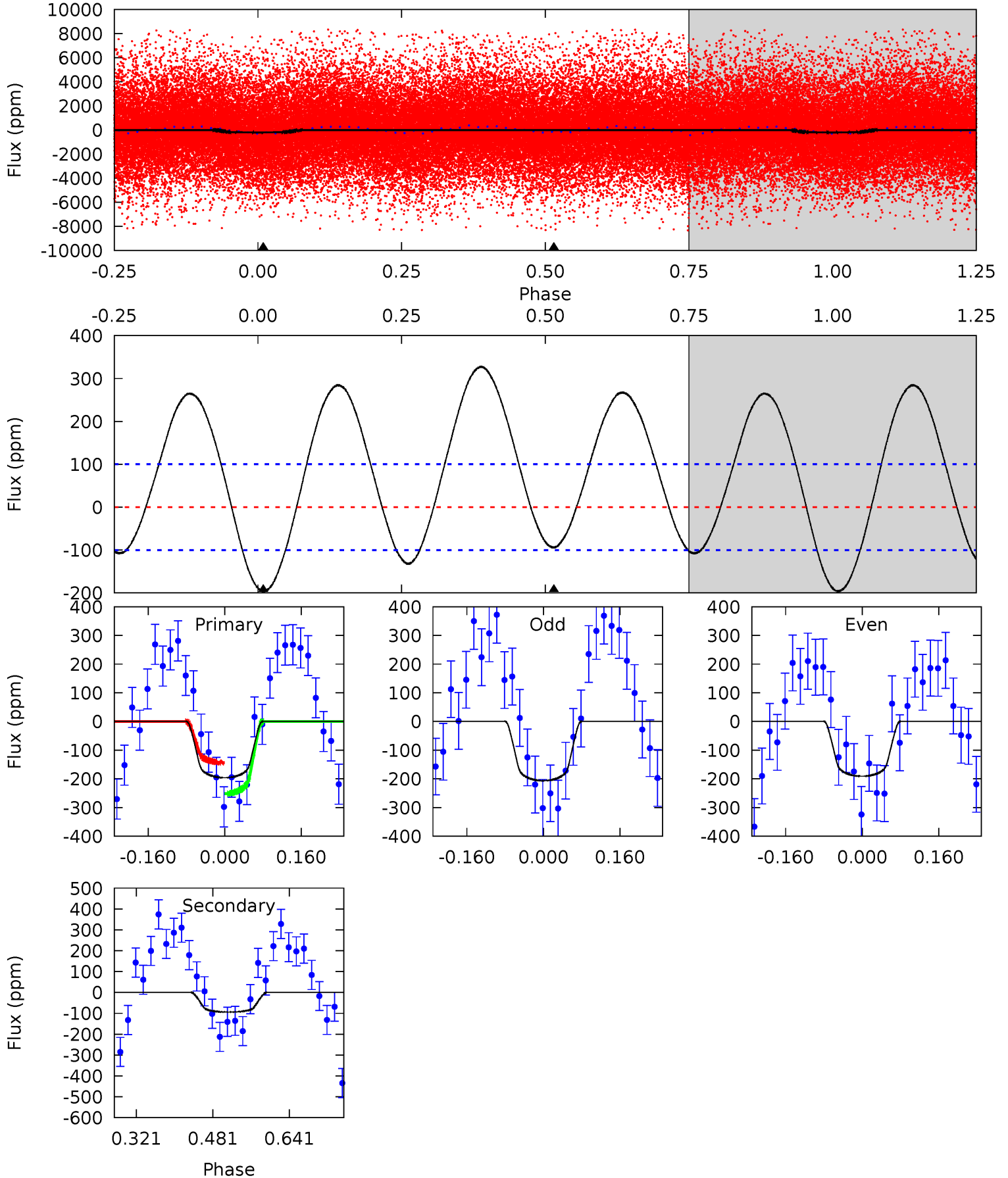
TCE 005475187-01 P= 0.831952 Days $T_0=132.303681$ (BKJD)



DV Model-Shift Uniqueness Test

005475187-01, P = 0.831942 Days, E = 131.471744 Days

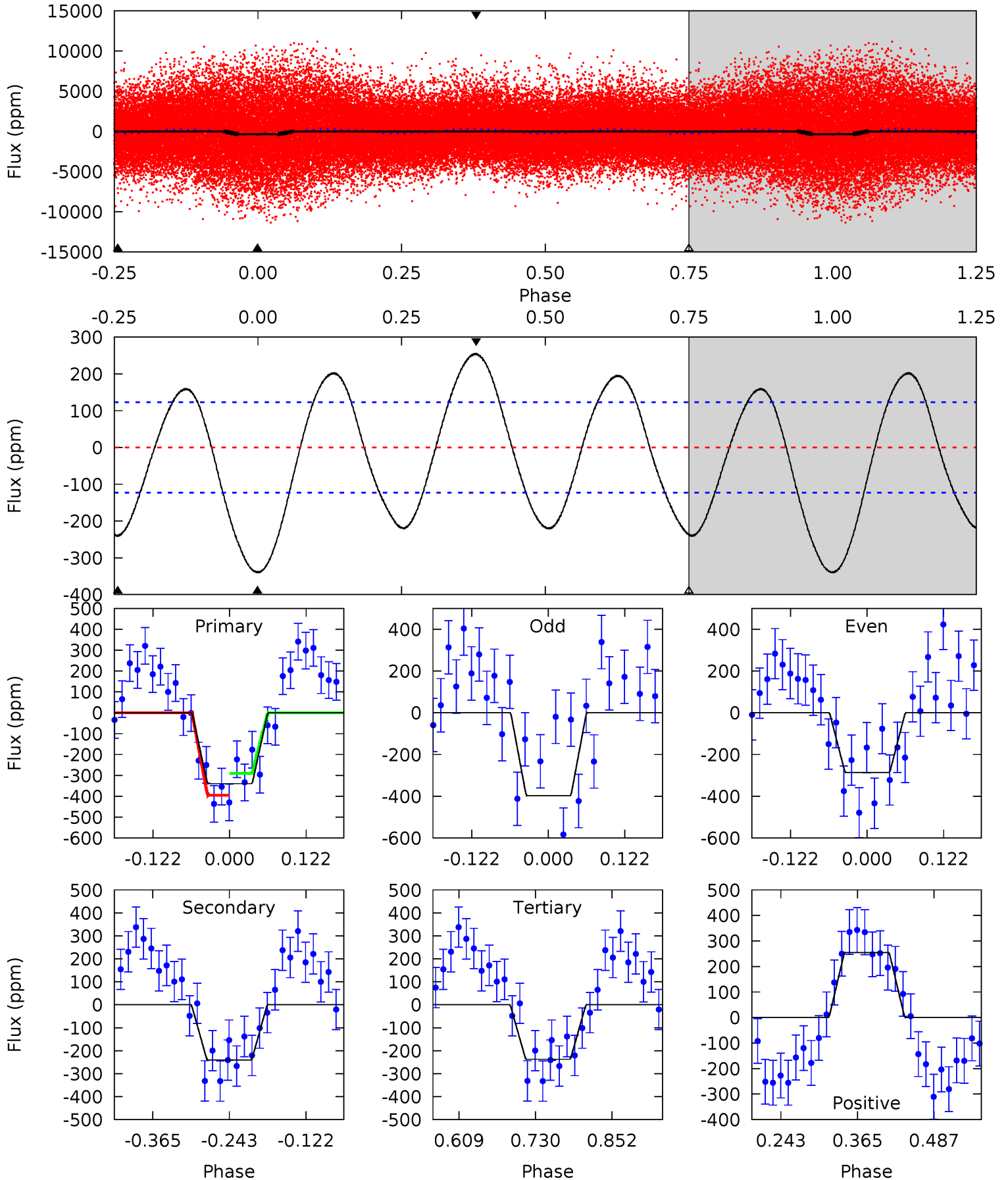
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
8.74	4.20	0	0	4.46	1.40	4.74	8.74	8.74	4.20	4.20	0.35	0.74	0.63	2.48



Alt Model-Shift Uniqueness Test

005475187-01, P = 0.831952 Days, E = 131.471729 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
12.5	8.83	8.72	9.36	4.52	1.55	5.75	3.76	3.12	0.11	-0.53	2.01	0.71	0.43	1.87



Stellar Parameters For KIC 005475187

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6890^{+189}_{-324}	$4.312^{+0.072}_{-0.168}$	$0.070^{+0.200}_{-0.350}$	$1.373^{+0.376}_{-0.202}$	$1.411^{+0.163}_{-0.224}$	$0.767^{+0.249}_{-0.368}$
	+3%/-5%	+2%/-4%	+286%/-500%	+27%/-15%	+12%/-16%	+32%/-48%
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 005475187-01 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{\text{max}} (K)$	$T_{\text{obs}} (K)$	A_{obs}
DV	-94 ± 22	$2.25^{+0.59}_{-0.46}$	3600^{+264}_{-196}	5389^{+736}_{-604}	$3.574^{+2.565}_{-1.439}$
Alt.	-240 ± 27	$2.92^{+0.62}_{-0.48}$	3621^{+220}_{-207}	6046^{+631}_{-475}	$5.753^{+2.486}_{-1.833}$

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 $A_{\text{obs}} \gg 1.0$

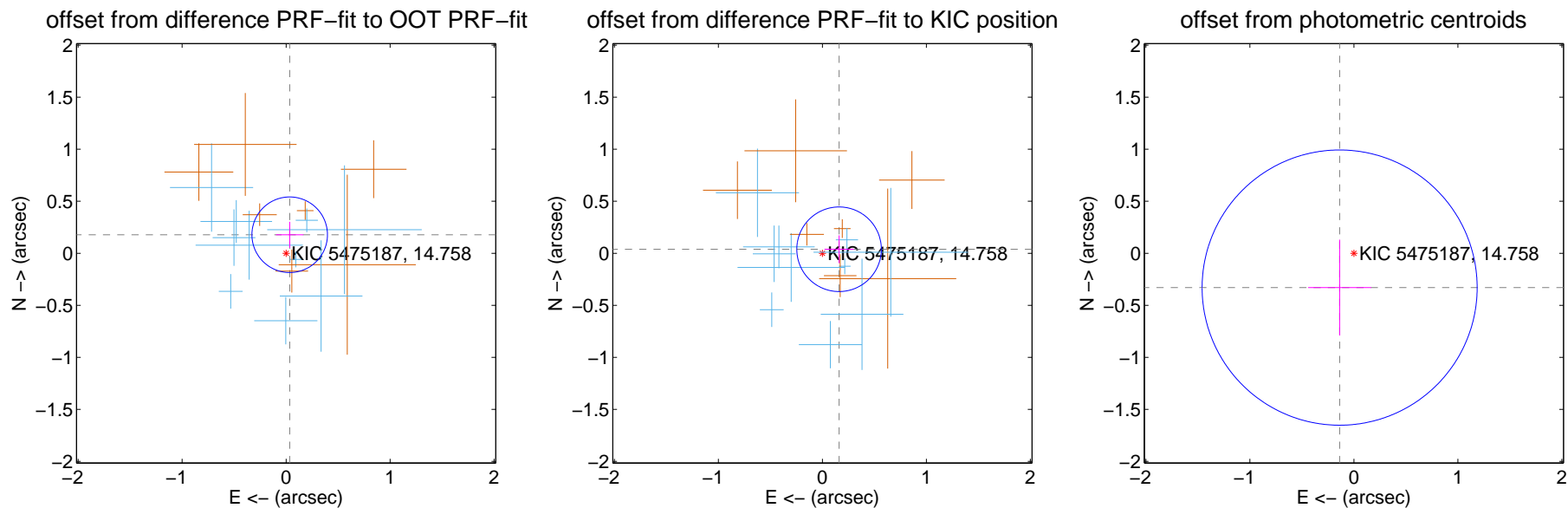
DV Centroid Data

Supplemental centroid analysis for 005475187-01. Kepler magnitude: 14.76. Transit SNR 9.29

There are 10 quarters with good PRF difference image offsets

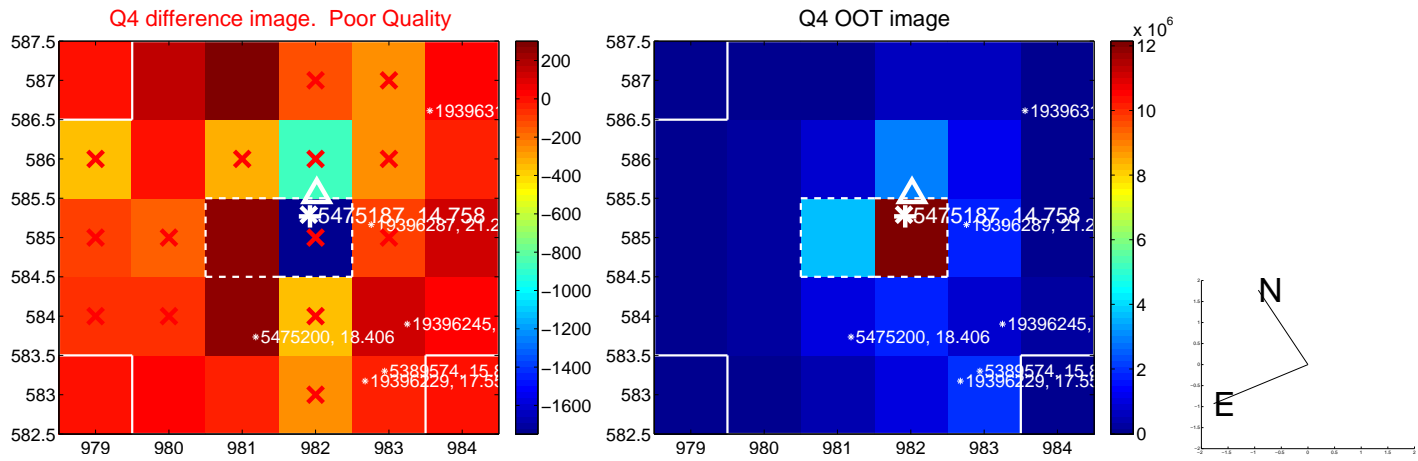
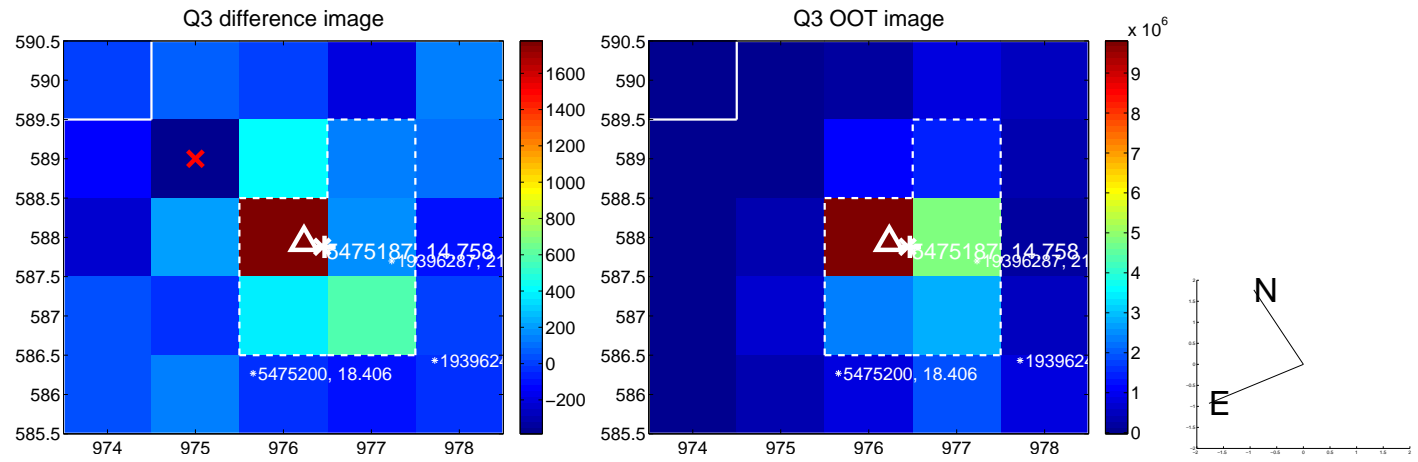
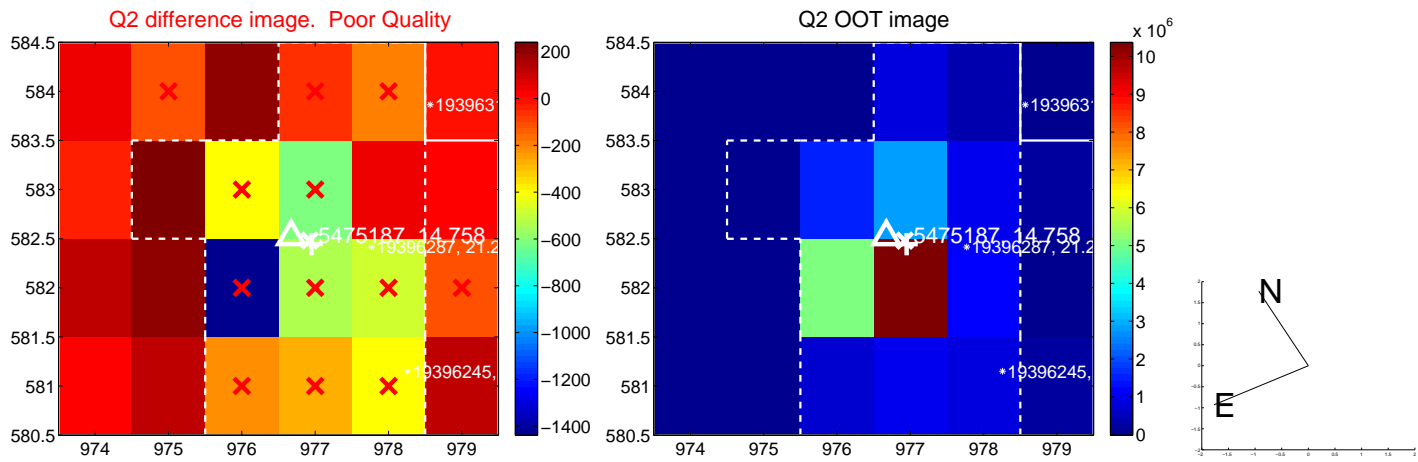
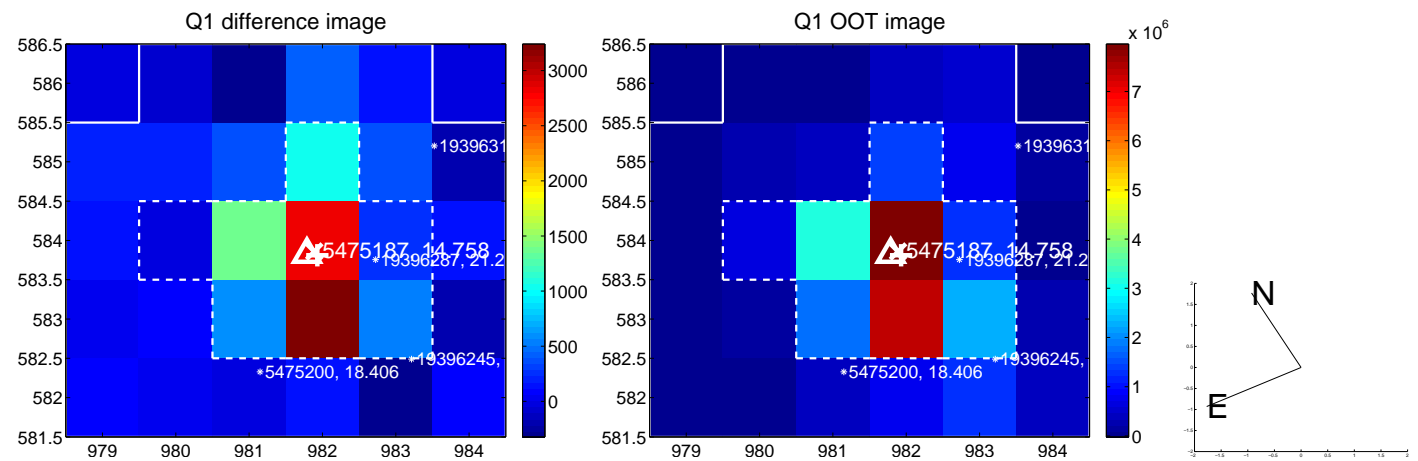
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.182 ± 0.121	1.50	-0.034 ± 0.132	0.178 ± 0.125
PRF-fit source offset from KIC position	0.165 ± 0.136	1.22	-0.161 ± 0.141	0.039 ± 0.133
photometric centroid source offset	0.36 ± 0.44	0.81	0.14 ± 0.30	-0.33 ± 0.46

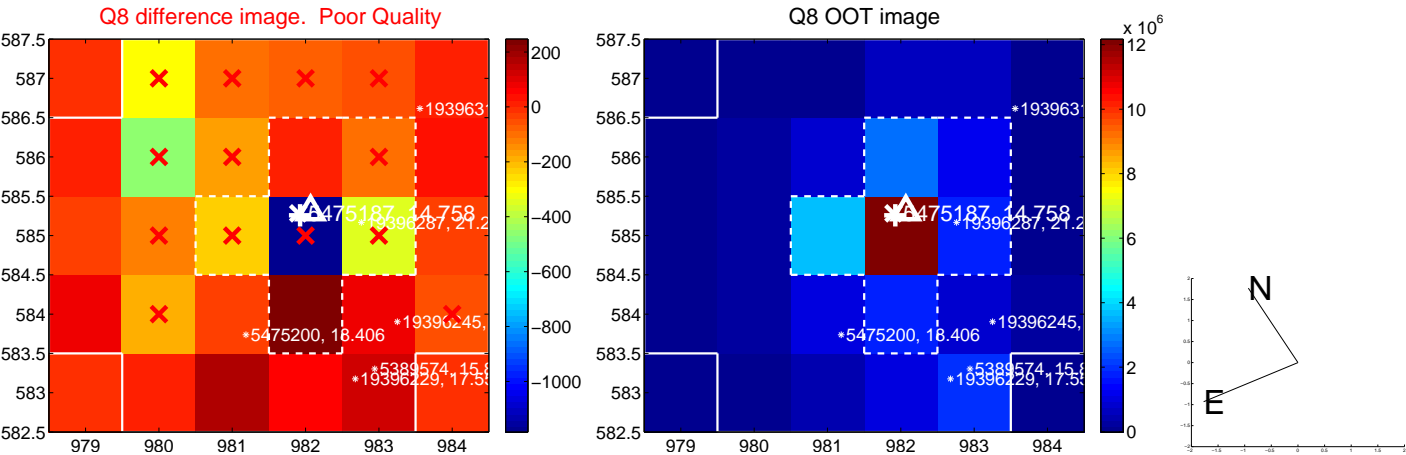
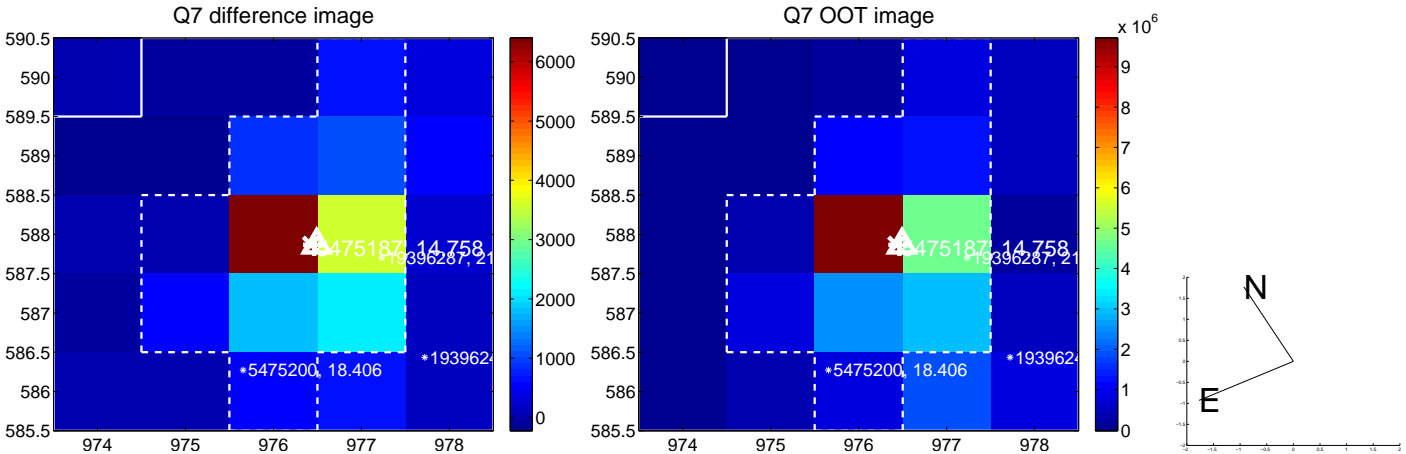
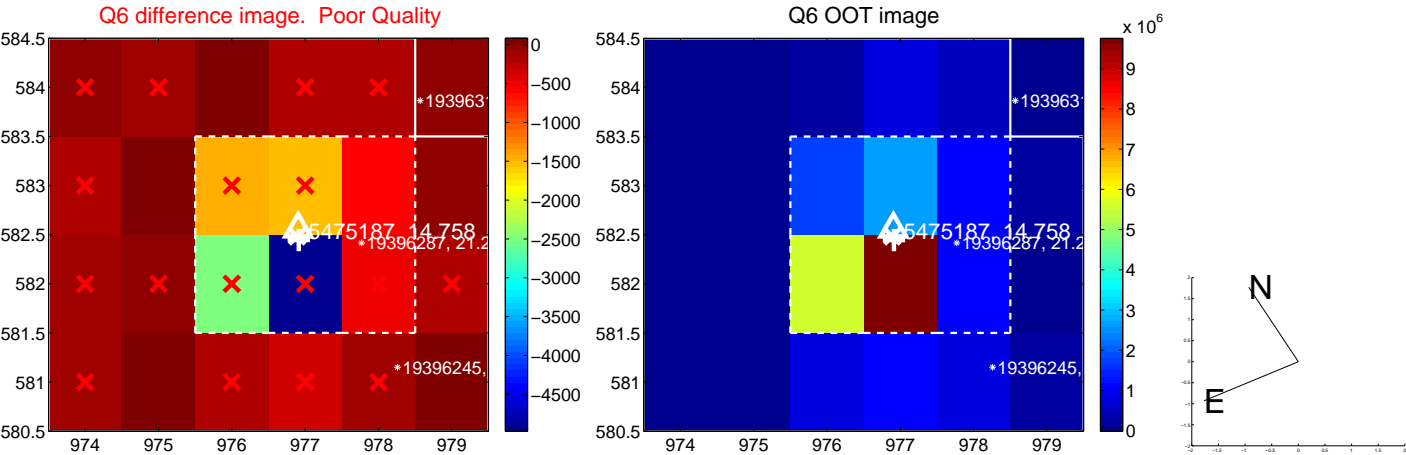
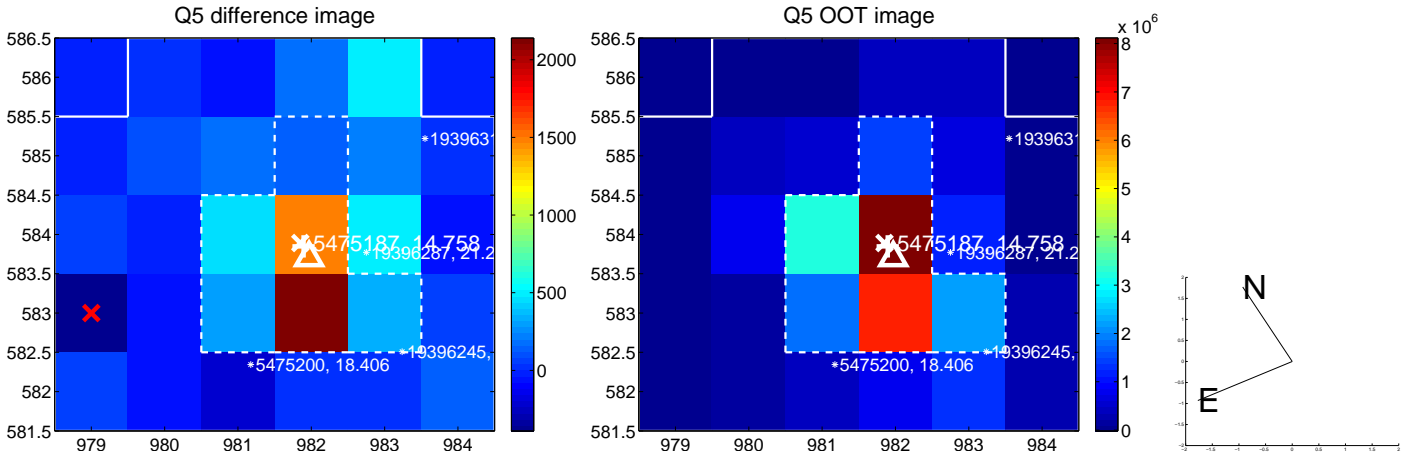


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

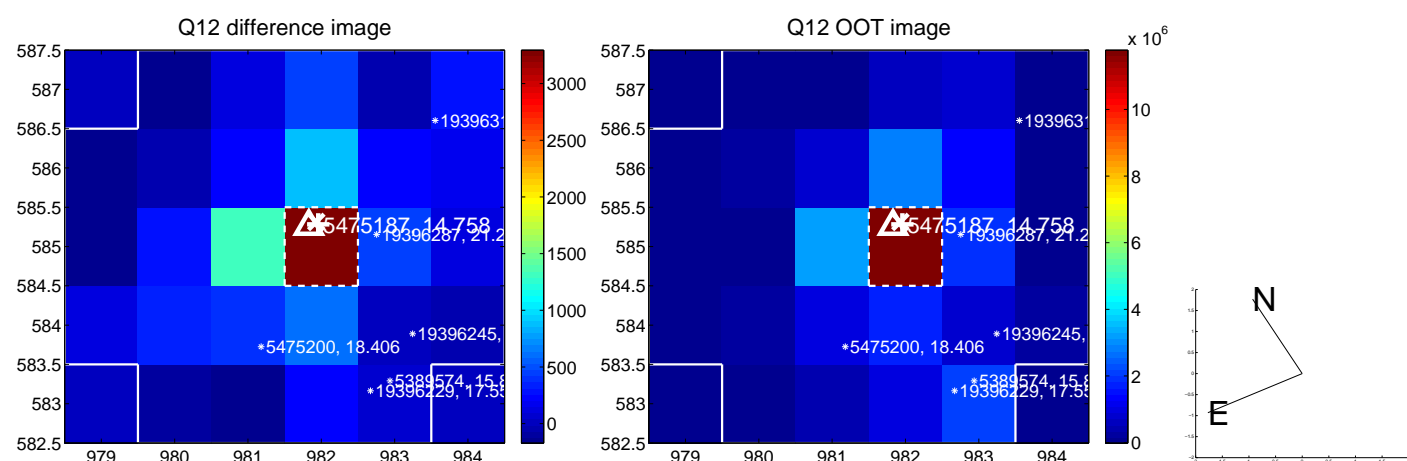
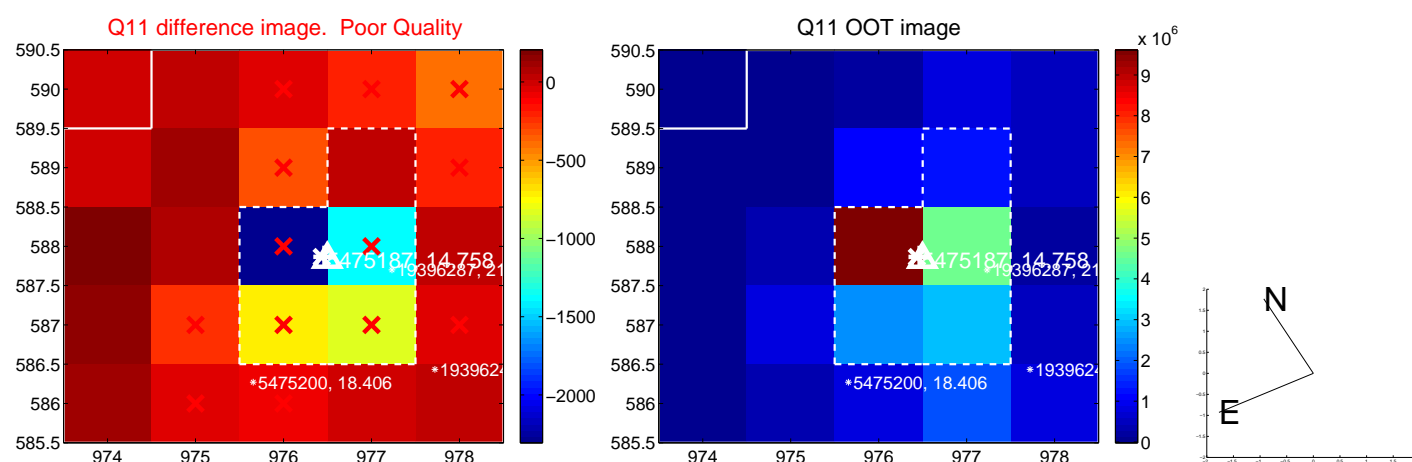
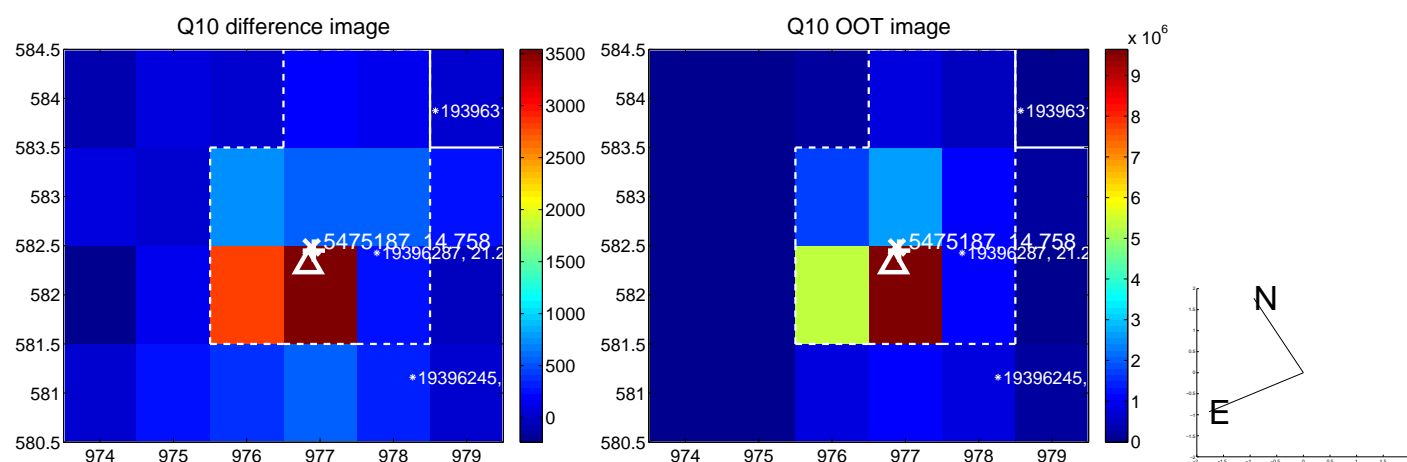
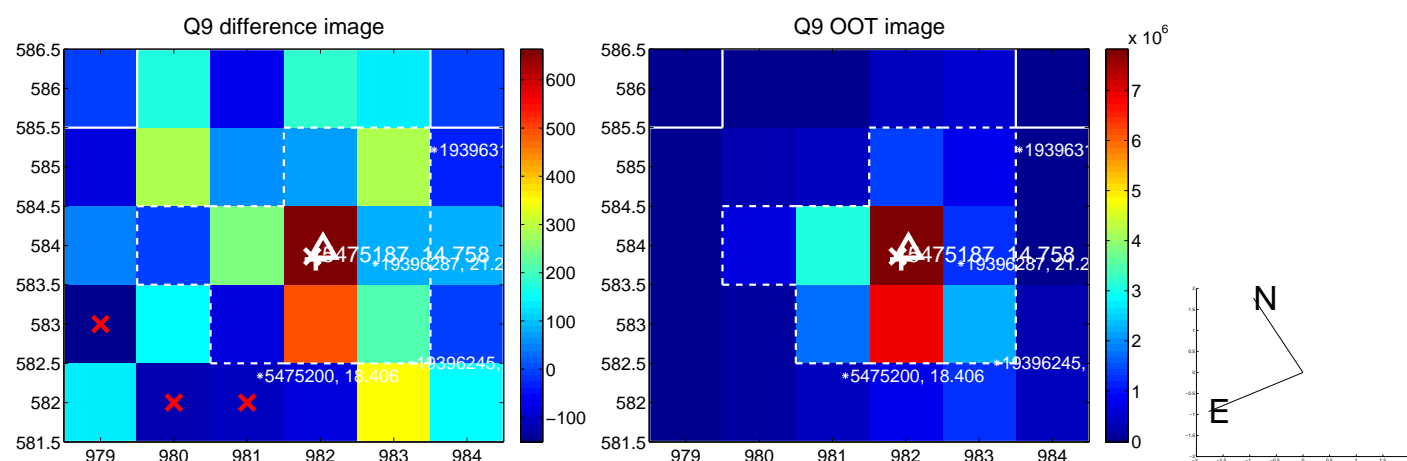
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



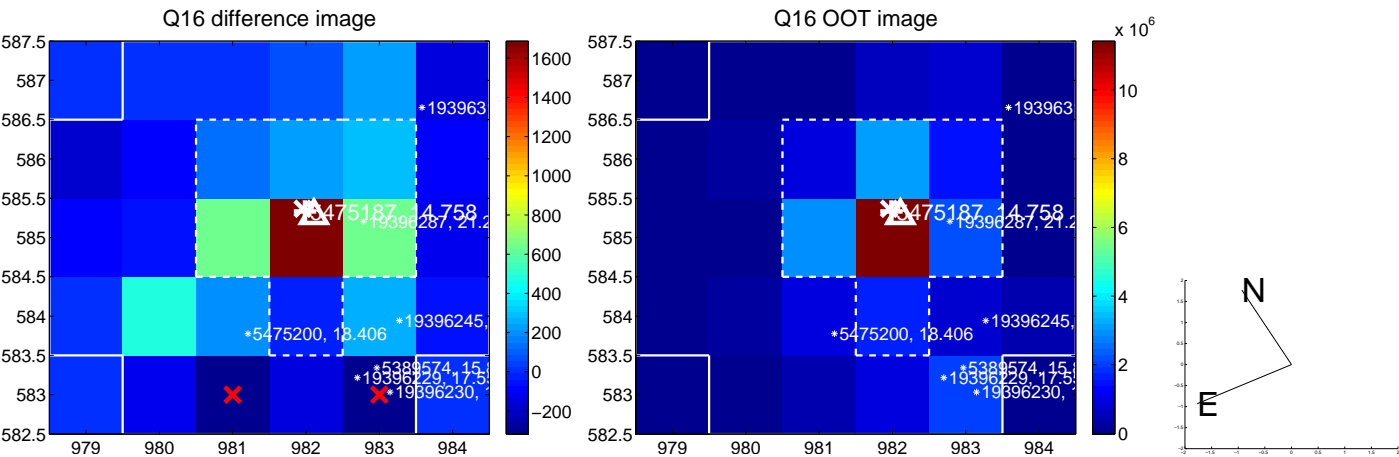
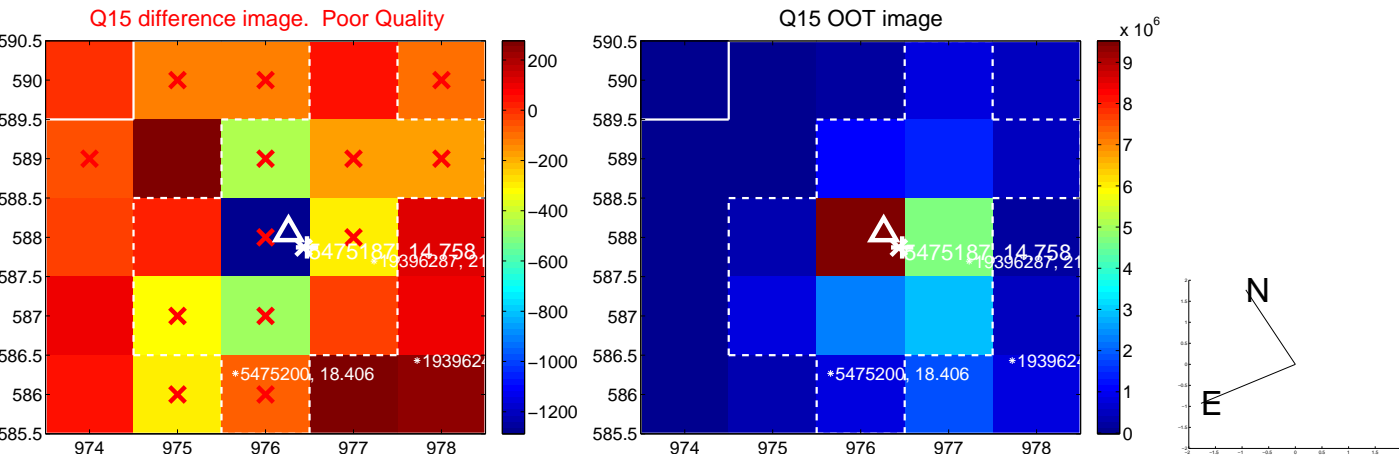
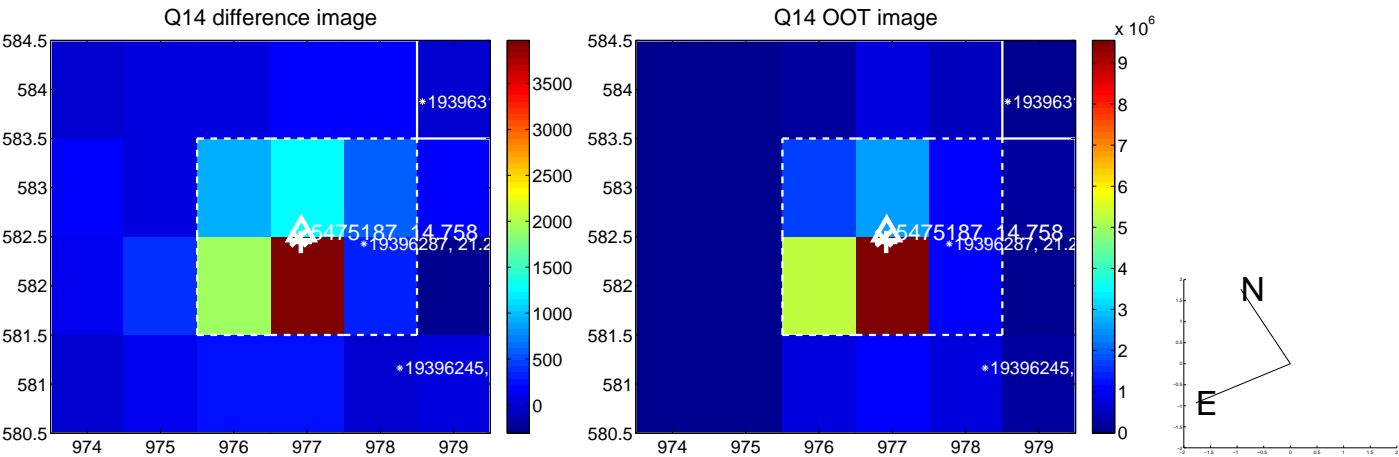
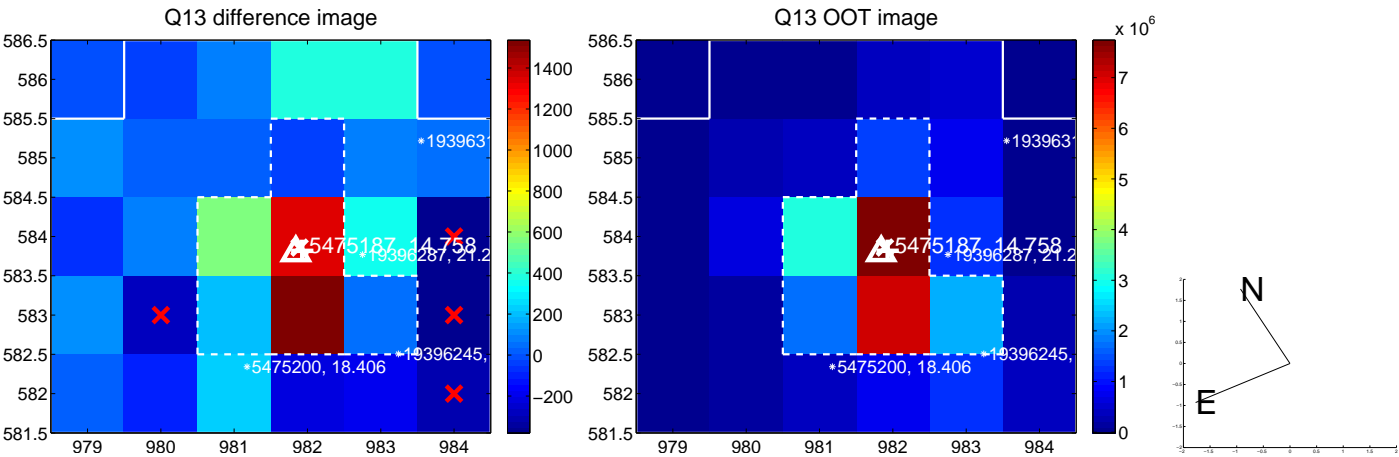
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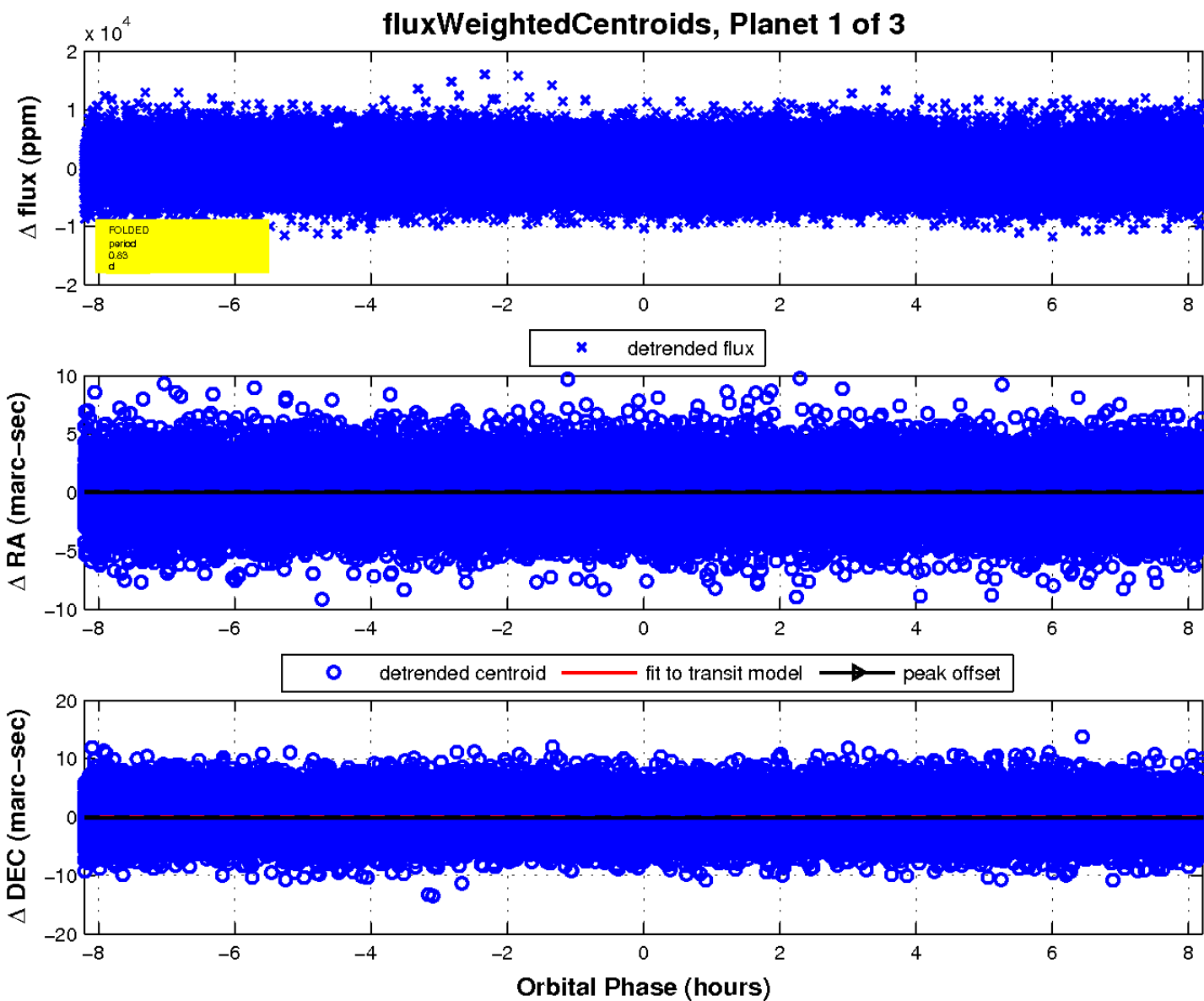
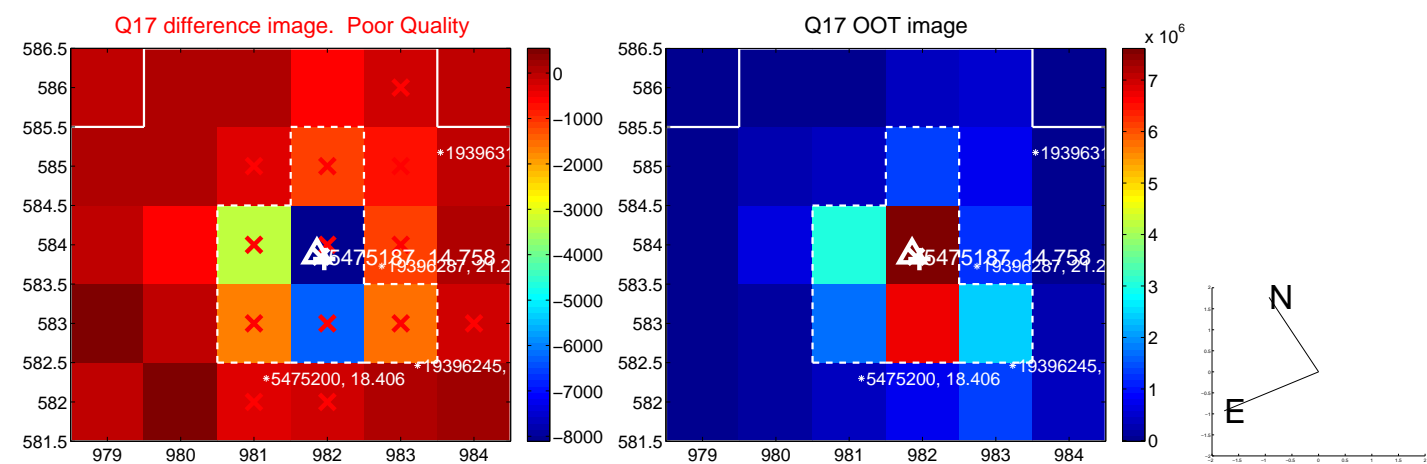
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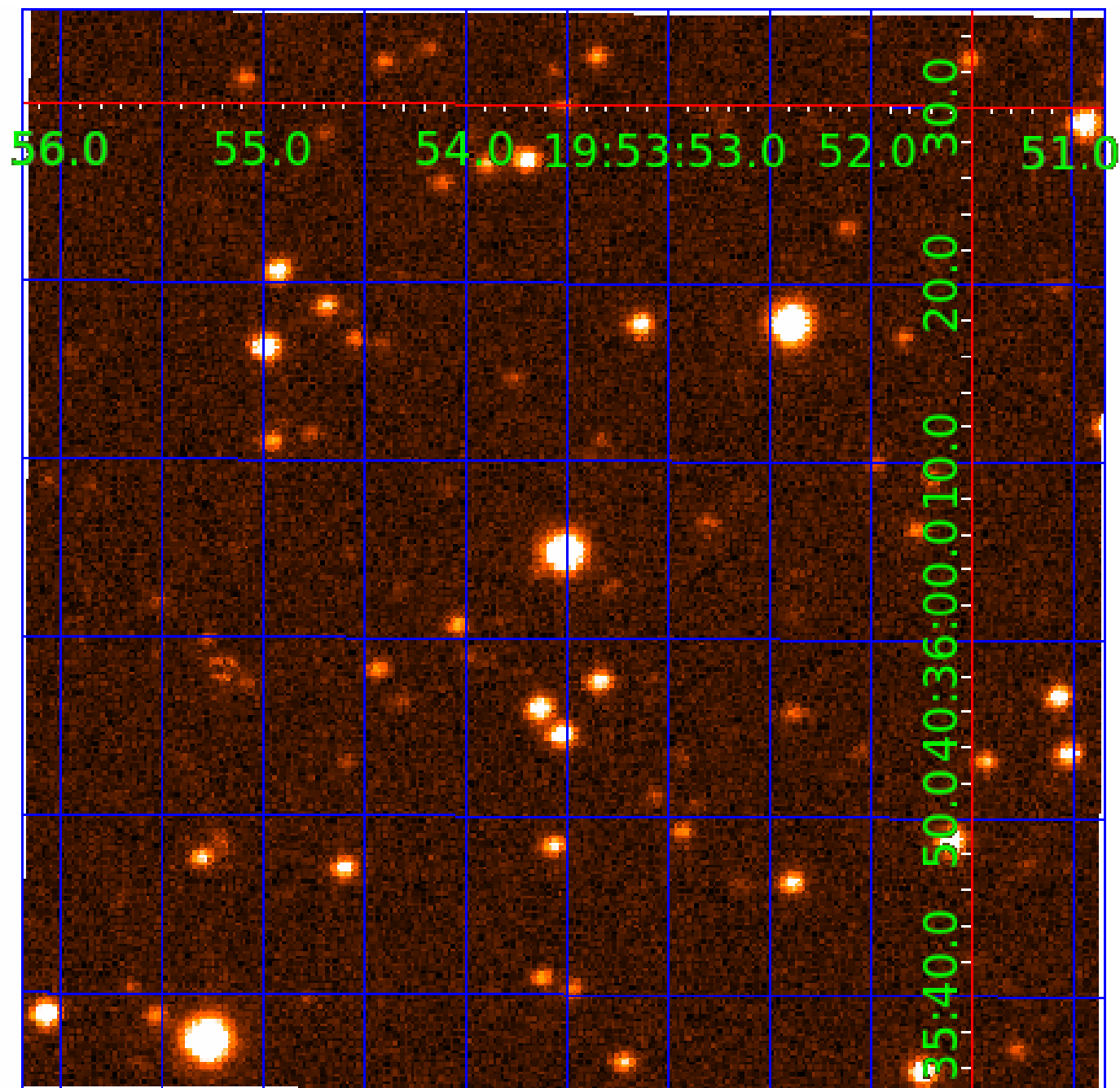


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UKIRT Image

Declination



KIC 005475187

Q1-17 DR25 TCE Parameters

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Robovetter Results

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005475187-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT

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

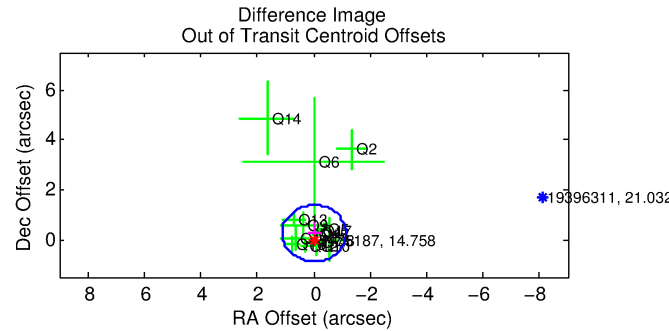
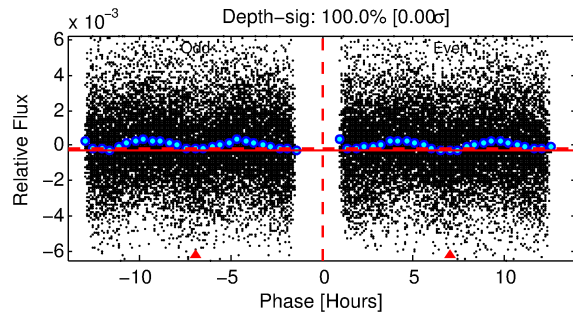
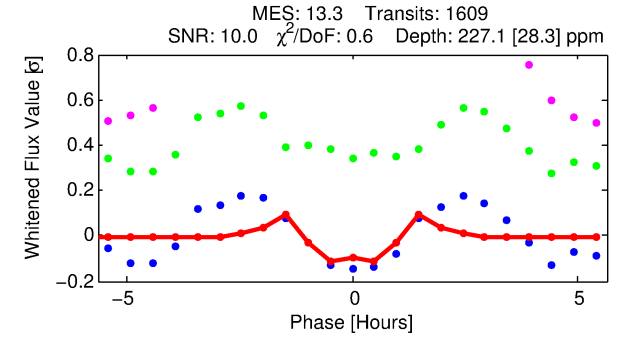
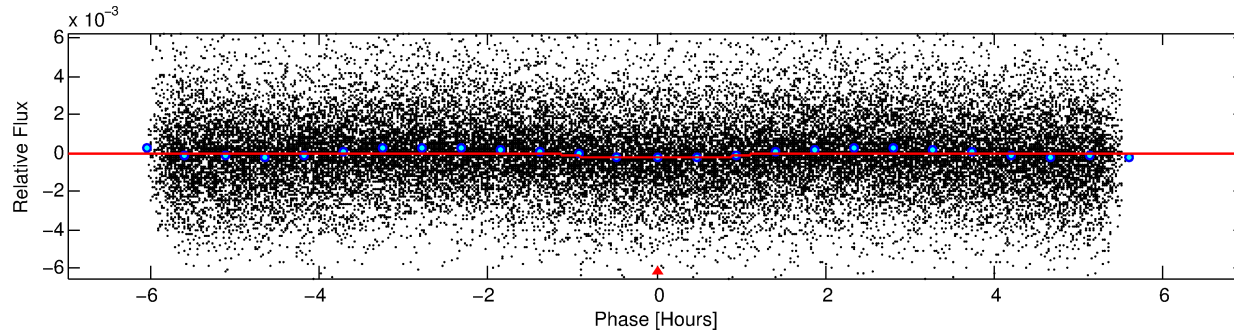
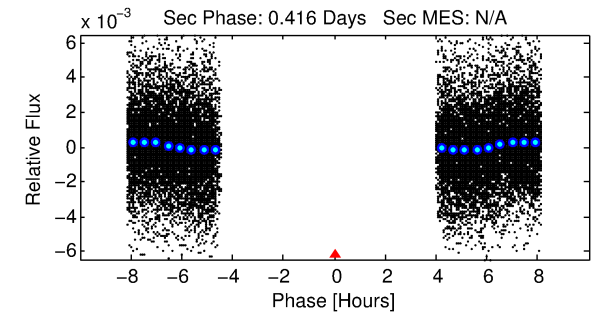
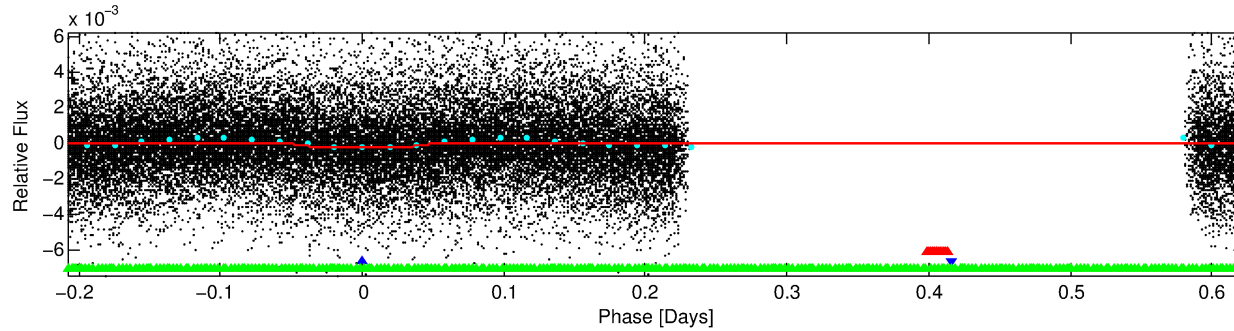
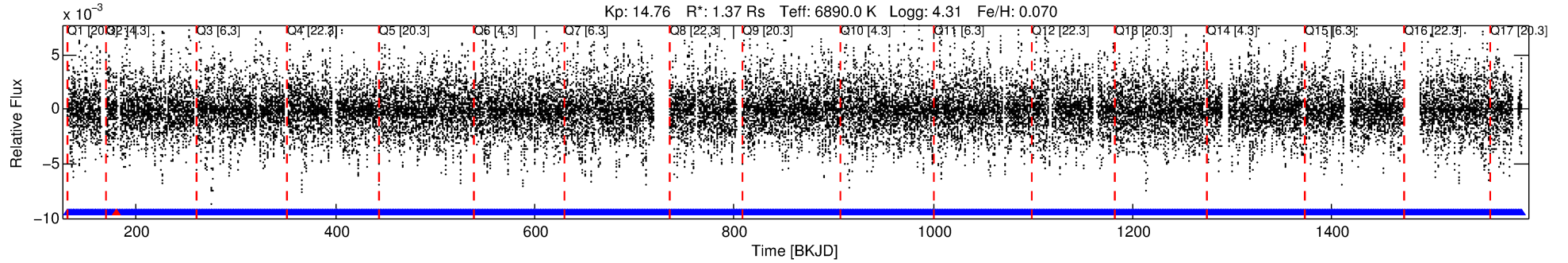
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475187-02

No Significant Match Found

DV One-Page Summary

KIC: 5475187 Candidate: 2 of 3 Period: 0.832 d



DV Fit Results:

Period = 0.83195 [0.00001] d
Epoch = 131.8909 [0.0013] BKJD
Rp/R* = 0.0161 [0.0032]
a/R* = 1.60 [1.02]
b = 0.90 [0.23]
Seff = 10094.59 [3712.00]
Teff = 2556 [235] K
Rp = 2.41 [0.81] Re
a = 0.0194 [0.0043] AU

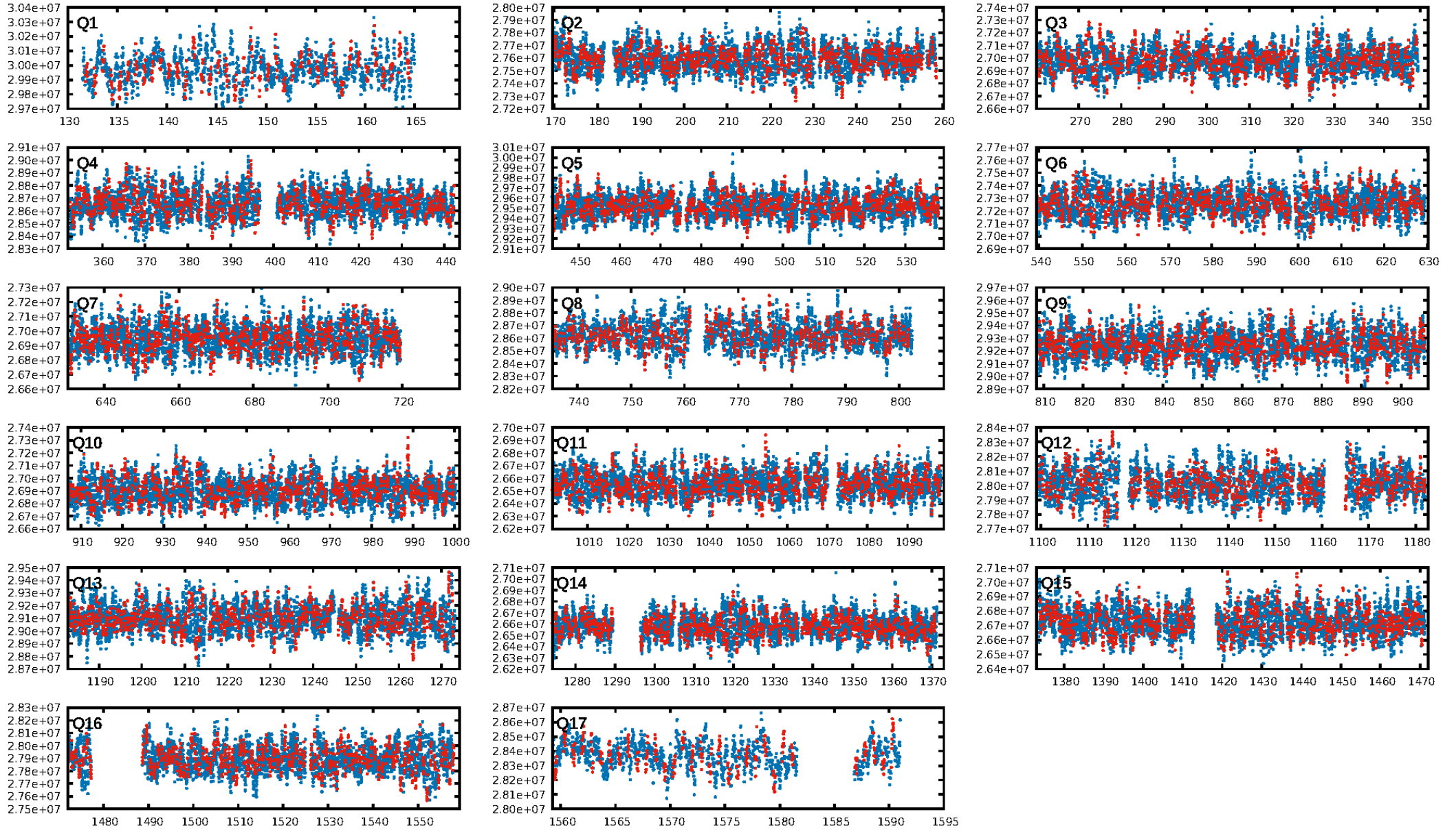
DV Diagnostic Results:

ShortPeriod-sig: 0.0% [0.00α]
LongPeriod-sig: 100.0% [19.61σ]
ModelChiSquare2-sig: N/A
ModelChiSquareGof-sig: N/A
Bootstrap-pfa: 4.16e-23
RollingBand-fgt: 1.00 [1536/1537]
GhostDiagnostic-chr: 14.51
Centroid-sig: 0.2%
Centroid-so: 0.595 arcsec [1.91σ]
OotOffset-rm: 0.250 arcsec [0.66σ]
KicOffset-rm: 0.155 arcsec [0.53σ]
OotOffset-st: 4/3/4/4 [15]
KicOffset-st: 4/3/4/4 [15]
DiffImageQuality-fgm: 0.73 [11/15]
DiffImageOverlap-fno: 1.00 [17/17]

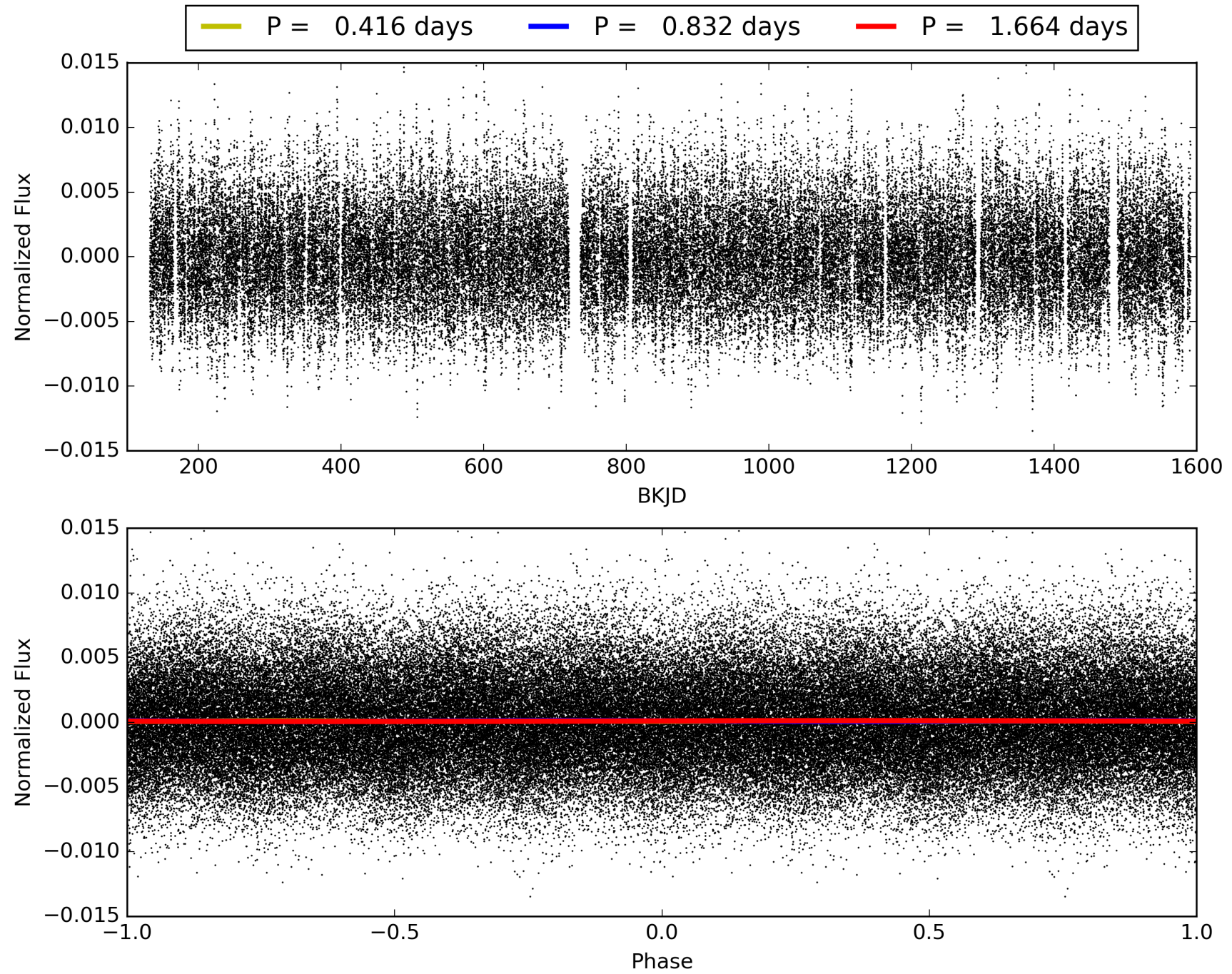
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:14:04 Z

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

TCE 005475187-02, PDC Light Curves

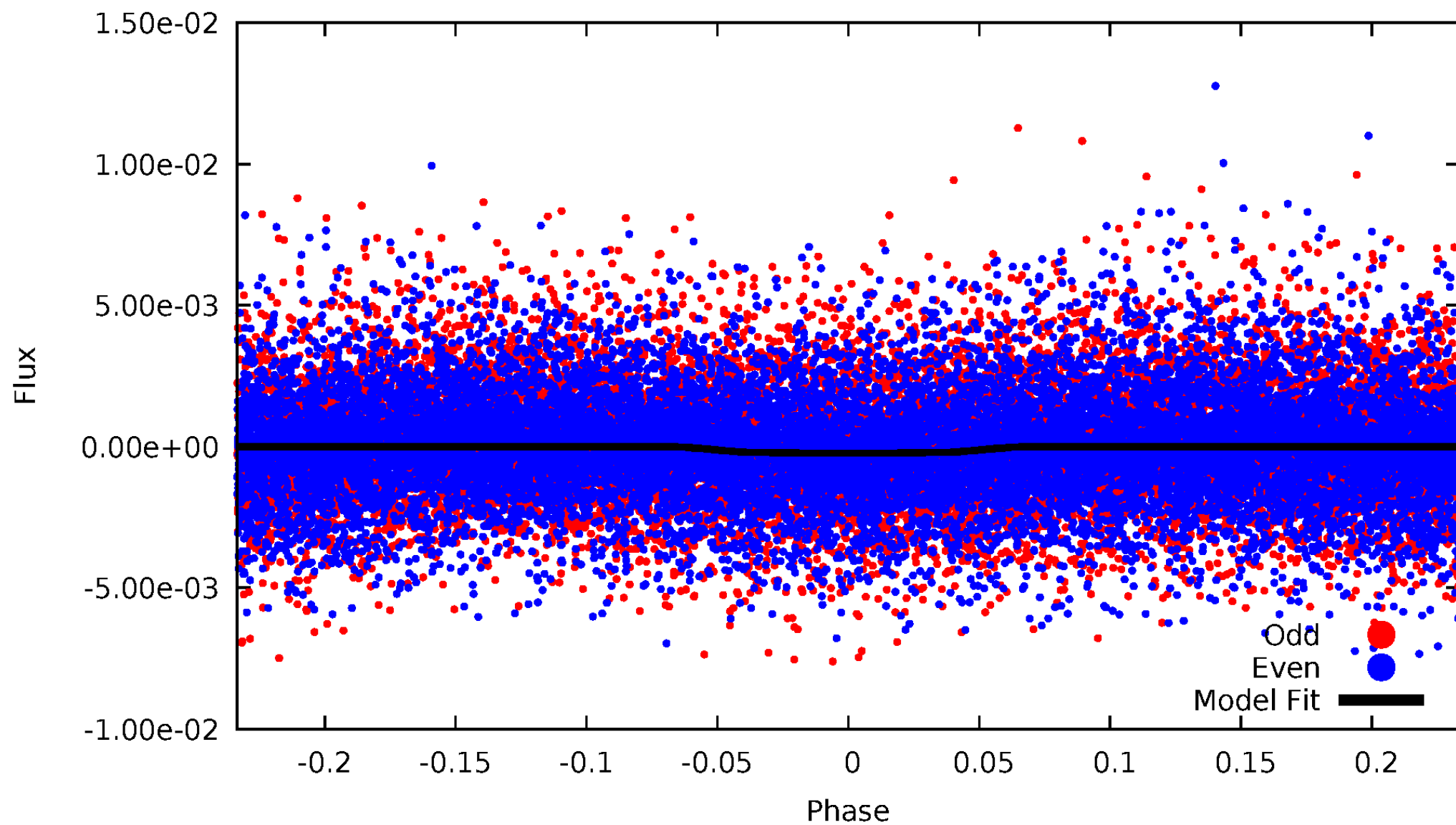


TCE 005475187-02



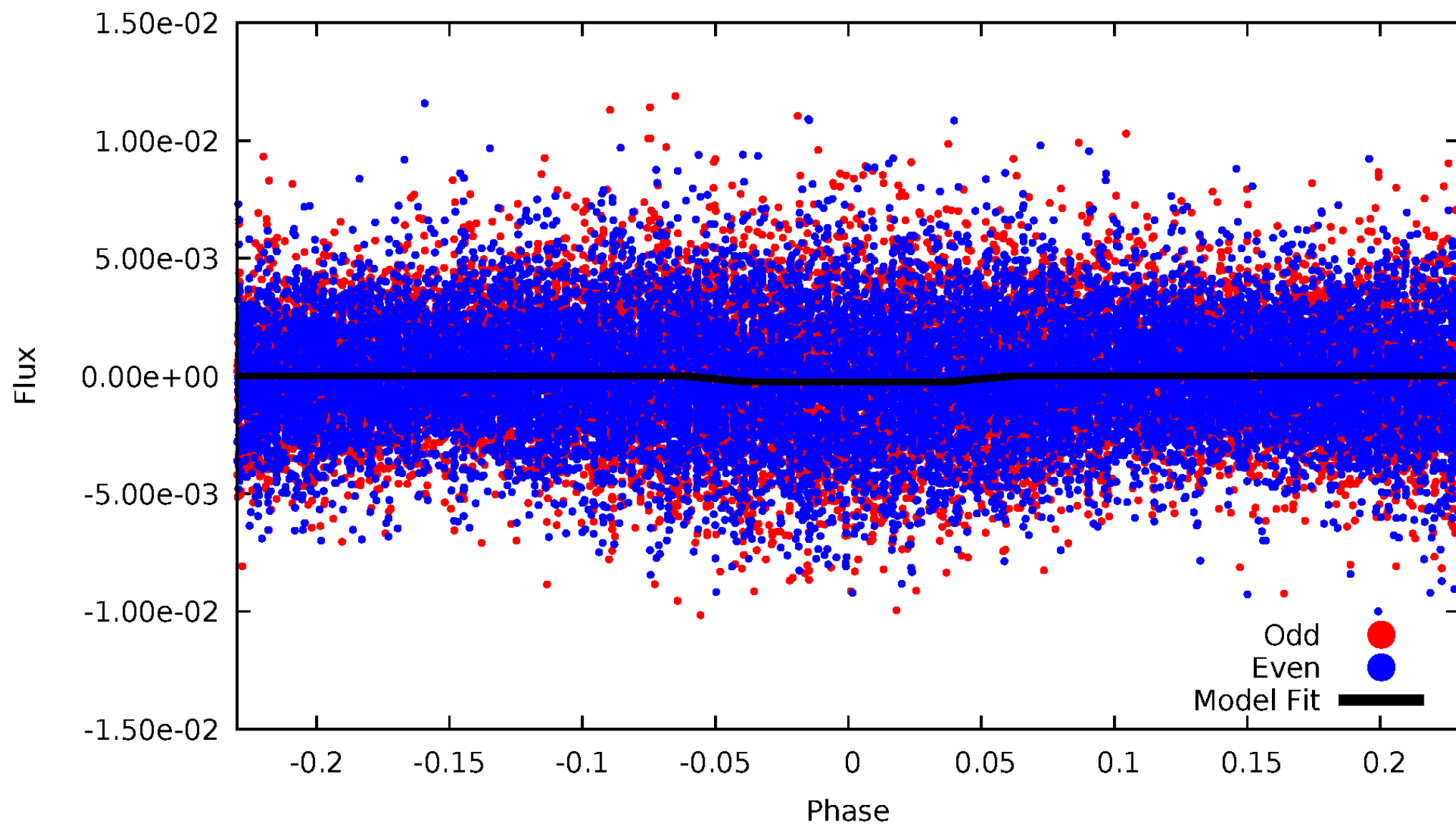
DV Odd/Even

TCE 005475187-02



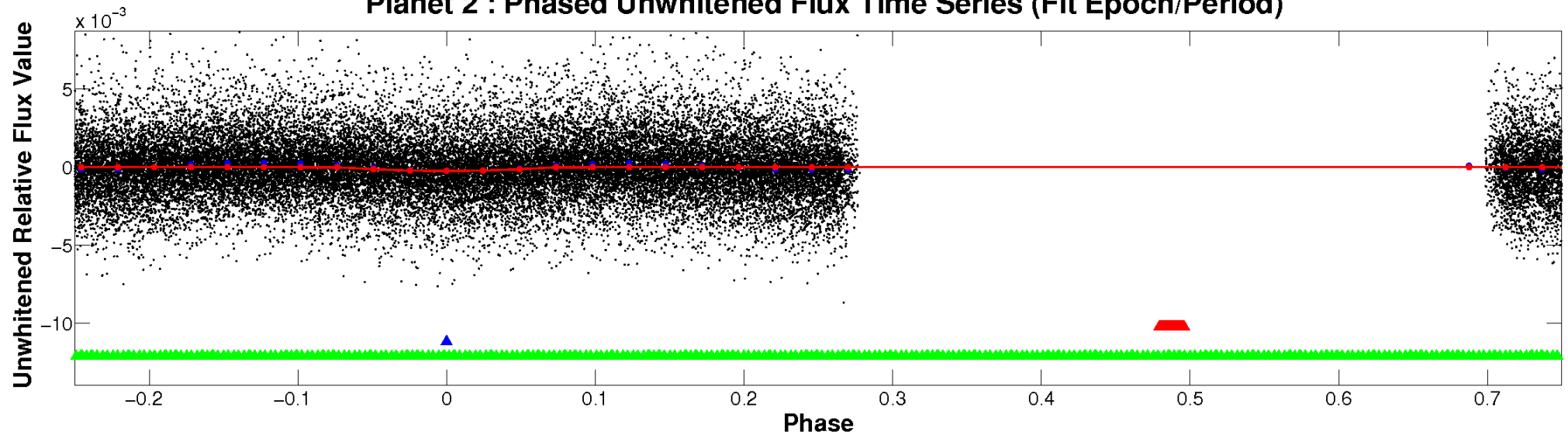
ALT Odd/Even

TCE 005475187-02

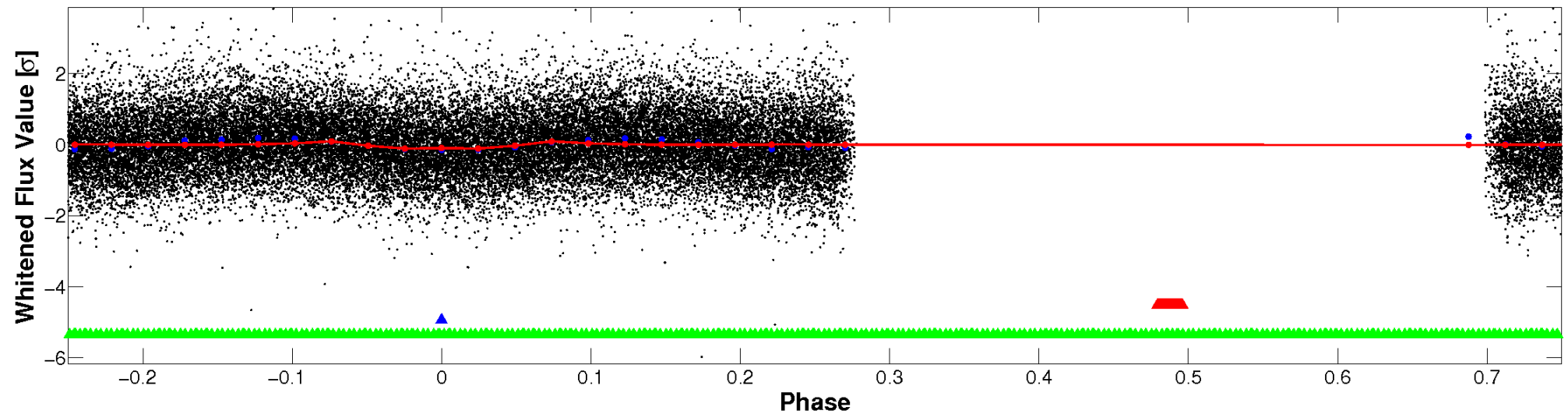


Non-Whitened Vs. Whitened Light Curve

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

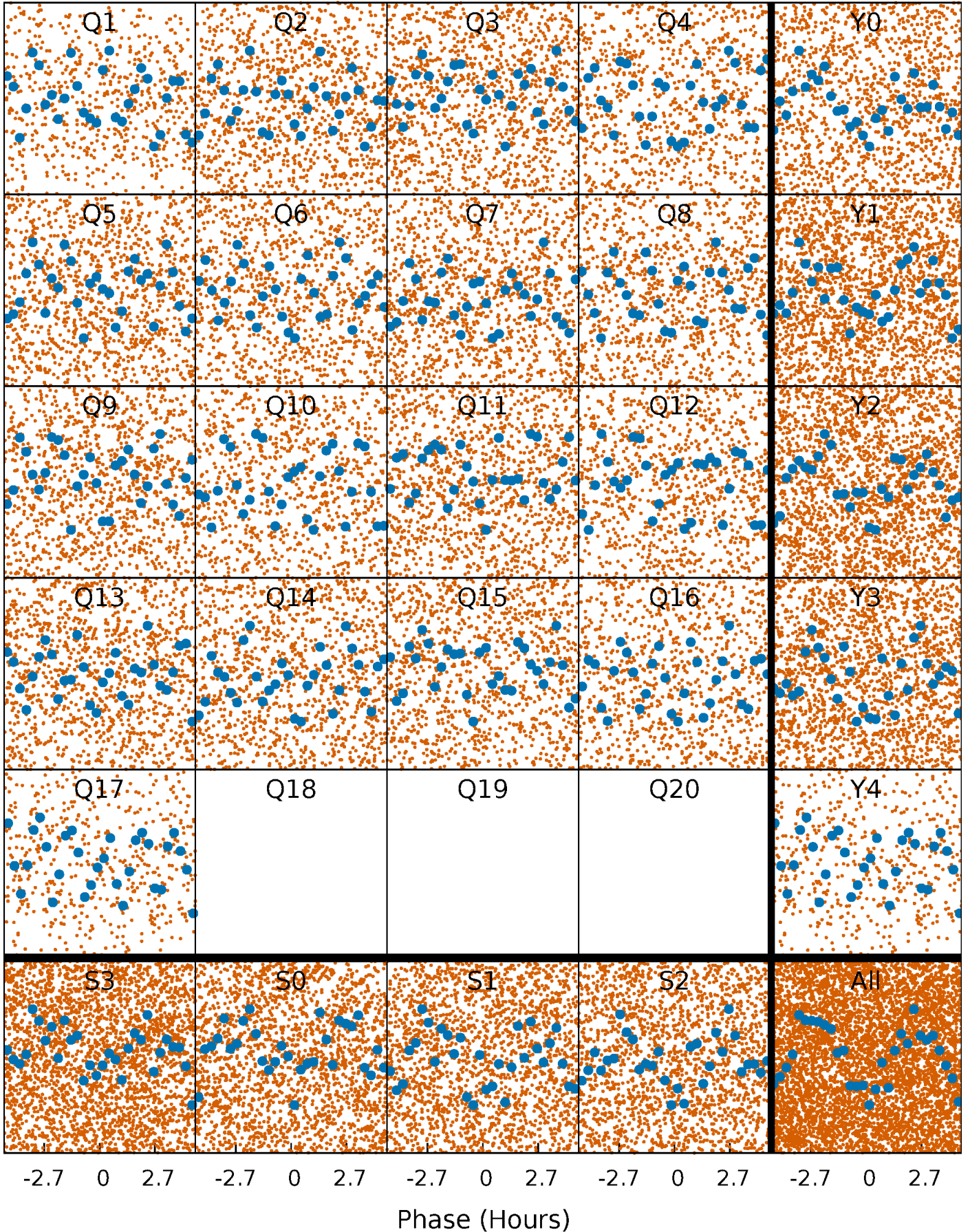


Planet 2 : Phased Whitened Flux Time Series (Fit Epoch/Period)



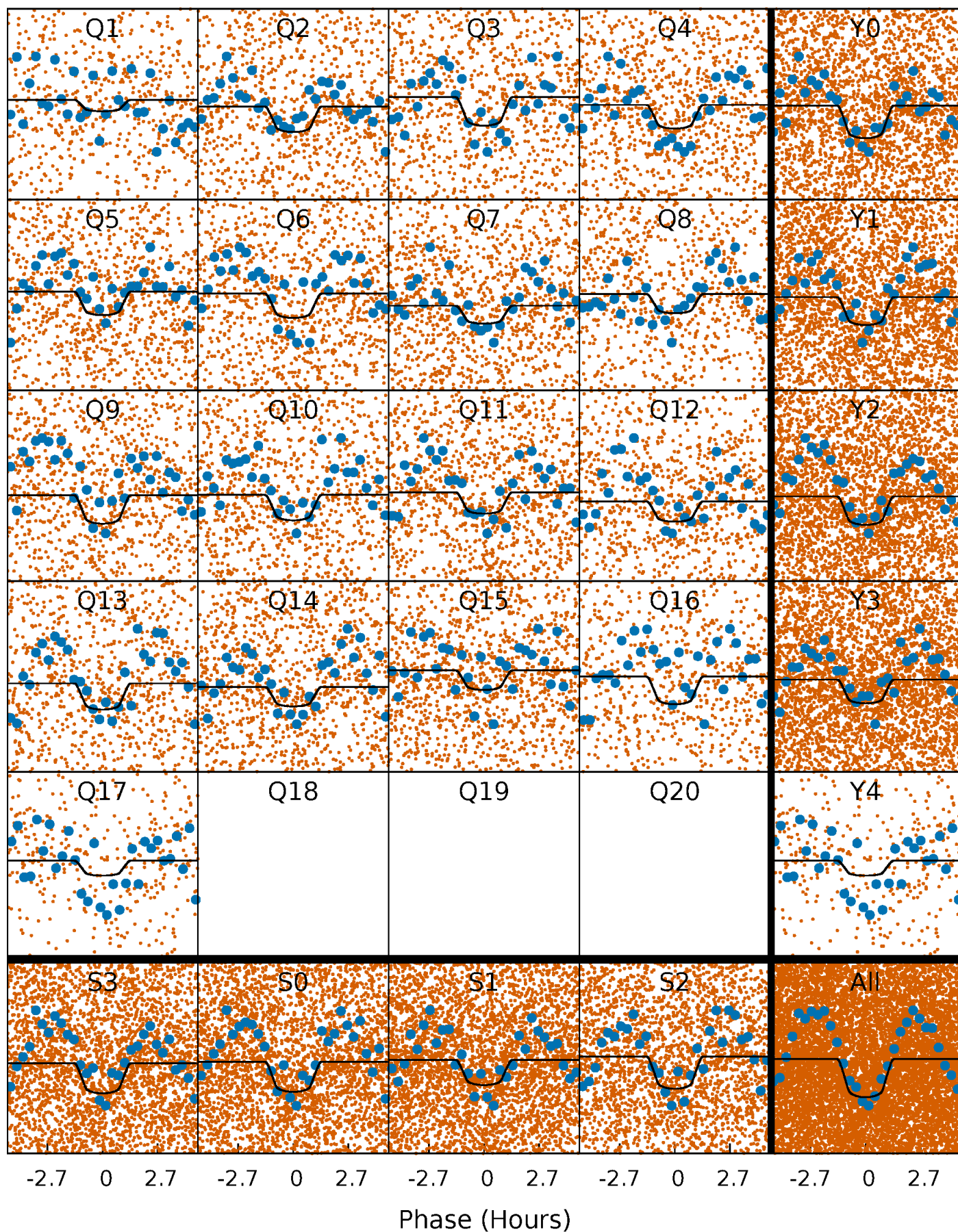
PDC Quarter-Phased Transit Curves

TCE 005475187-02 P= 0.831950 Days $T_0=131.890929$ (BKJD)



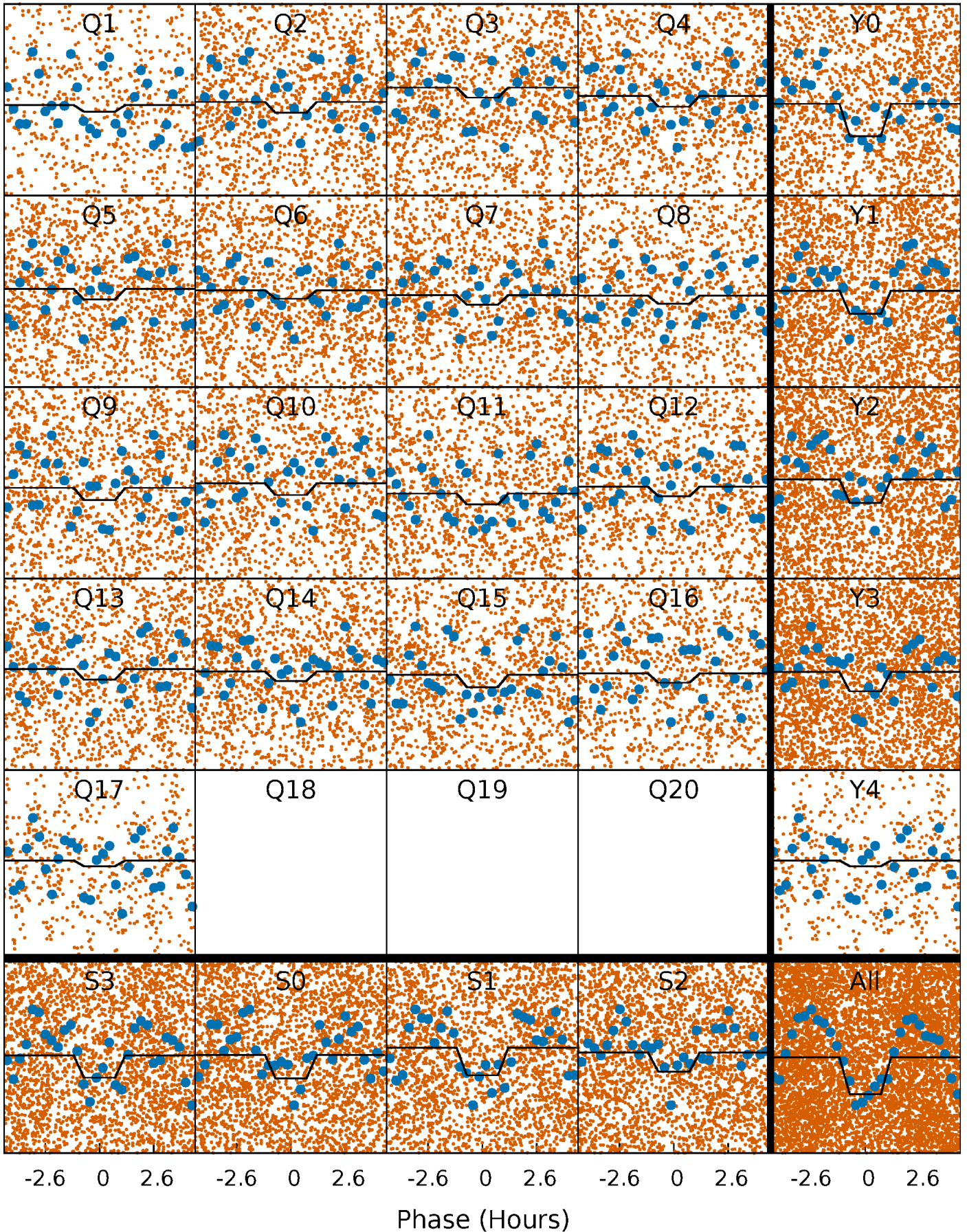
DV Quarter-Phased Transit Curves

TCE 005475187-02 P= 0.831950 Days $T_0=131.890929$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

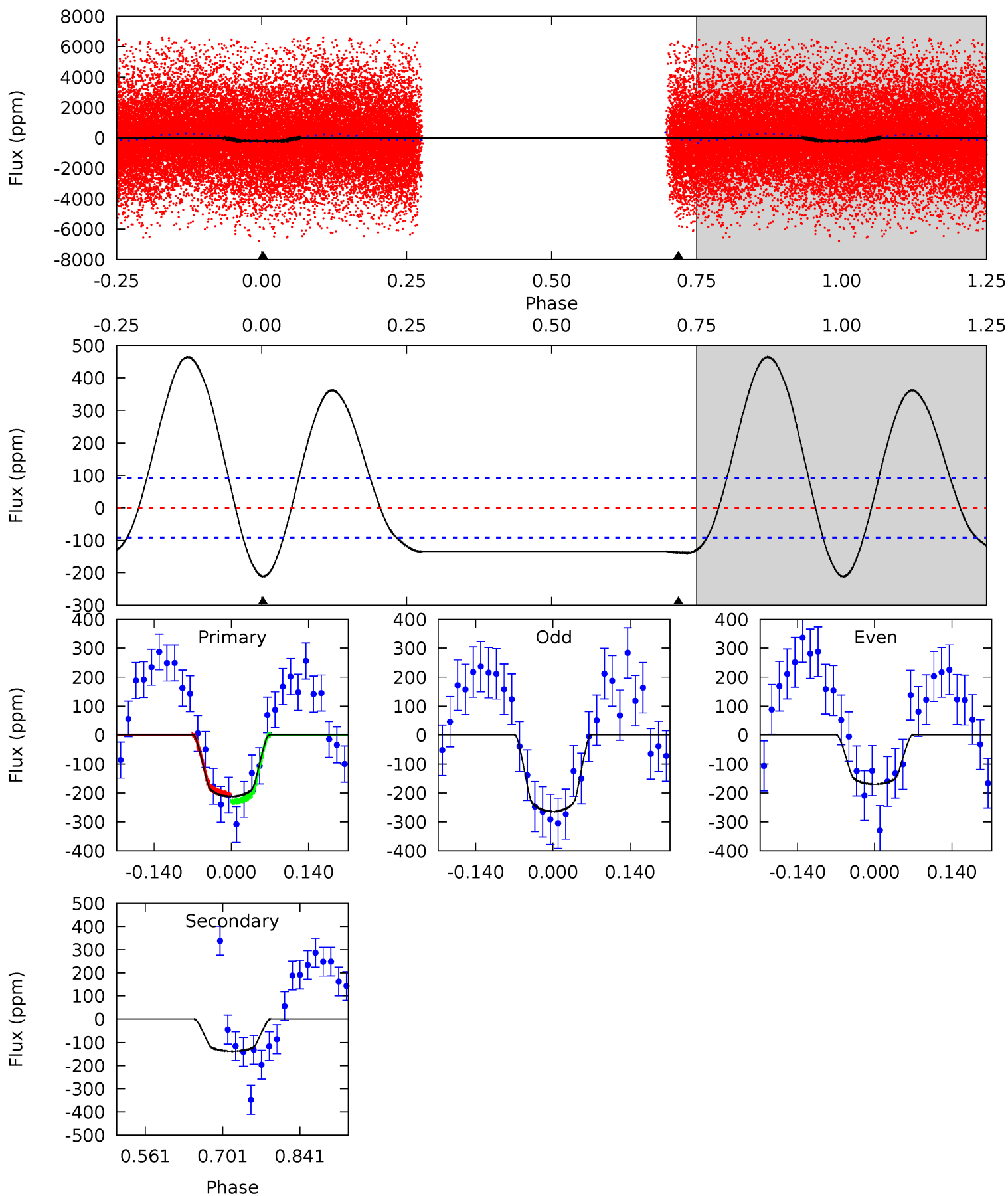
TCE 005475187-02 P= 0.831952 Days $T_0=131.890629$ (BKJD)



DV Model-Shift Uniqueness Test

005475187-02, P = 0.831950 Days, E = 131.058979 Days

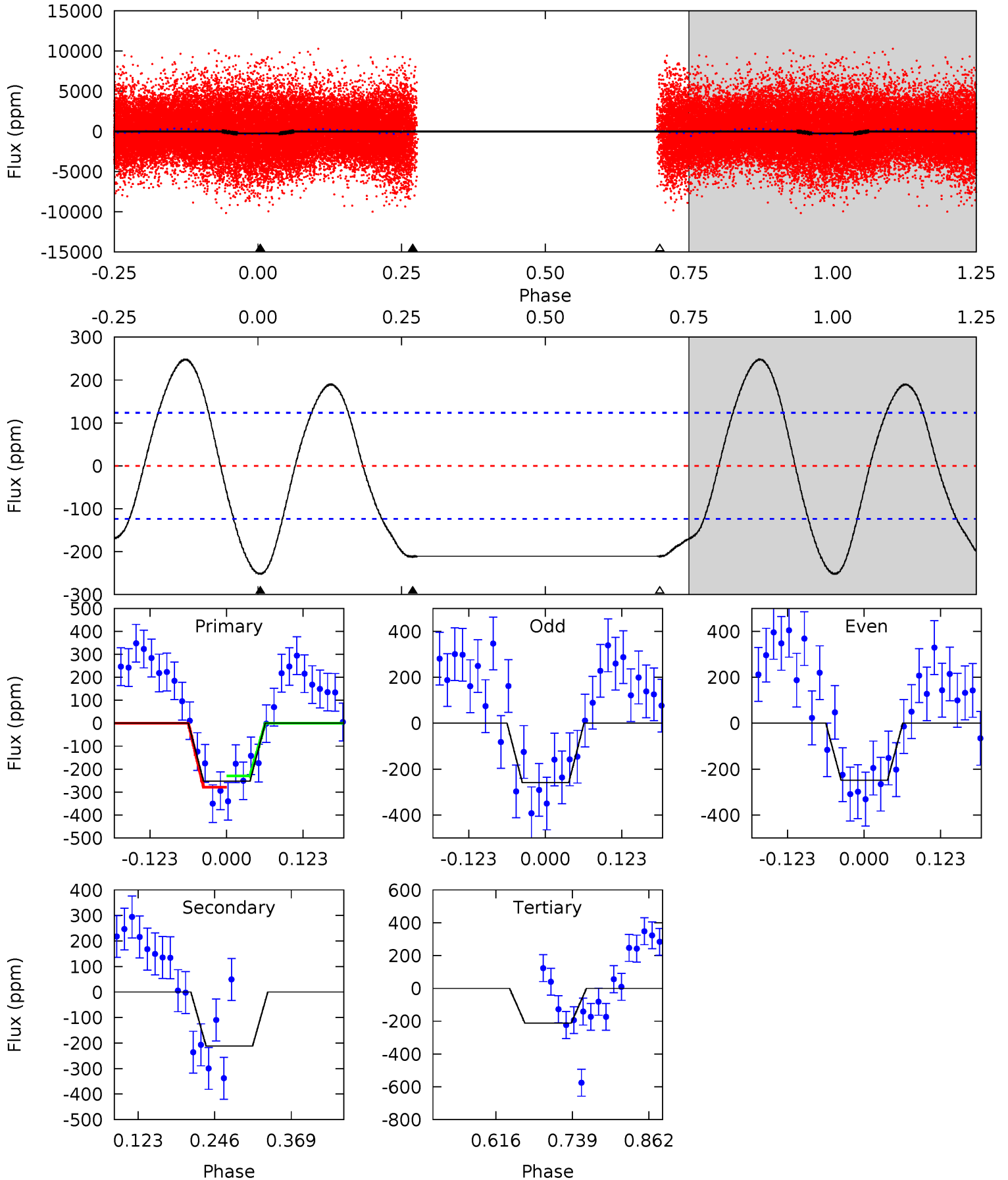
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
10.5	6.81	0	0	4.49	1.48	7.93	10.5	10.5	6.81	6.81	2.36	0.89	0.69	0.68



Alt Model-Shift Uniqueness Test

005475187-02, P = 0.831952 Days, E = 131.058677 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
9.22	7.75	7.73	0	4.52	1.54	6.20	1.49	9.22	0.02	7.75	0.20	0.78	0.50	0.89



Stellar Parameters For KIC 005475187

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6890^{+189}_{-324}	$4.312^{+0.072}_{-0.168}$	$0.070^{+0.200}_{-0.350}$	$1.373^{+0.376}_{-0.202}$	$1.411^{+0.163}_{-0.224}$	$0.767^{+0.249}_{-0.368}$
	+3%/-5%	+2%/-4%	+286%/-500%	+27%/-15%	+12%/-16%	+32%/-48%
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 005475187-02 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-138 ± 20	$2.51^{+0.64}_{-0.54}$	3627^{+223}_{-214}	5696^{+690}_{-558}	$4.473^{+2.559}_{-1.692}$
Alt.	-212 ± 27	$2.48^{+0.58}_{-0.58}$	3620^{+259}_{-188}	6434^{+925}_{-639}	$7.096^{+4.504}_{-2.665}$

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 $A_{obs} \gg 1.0$

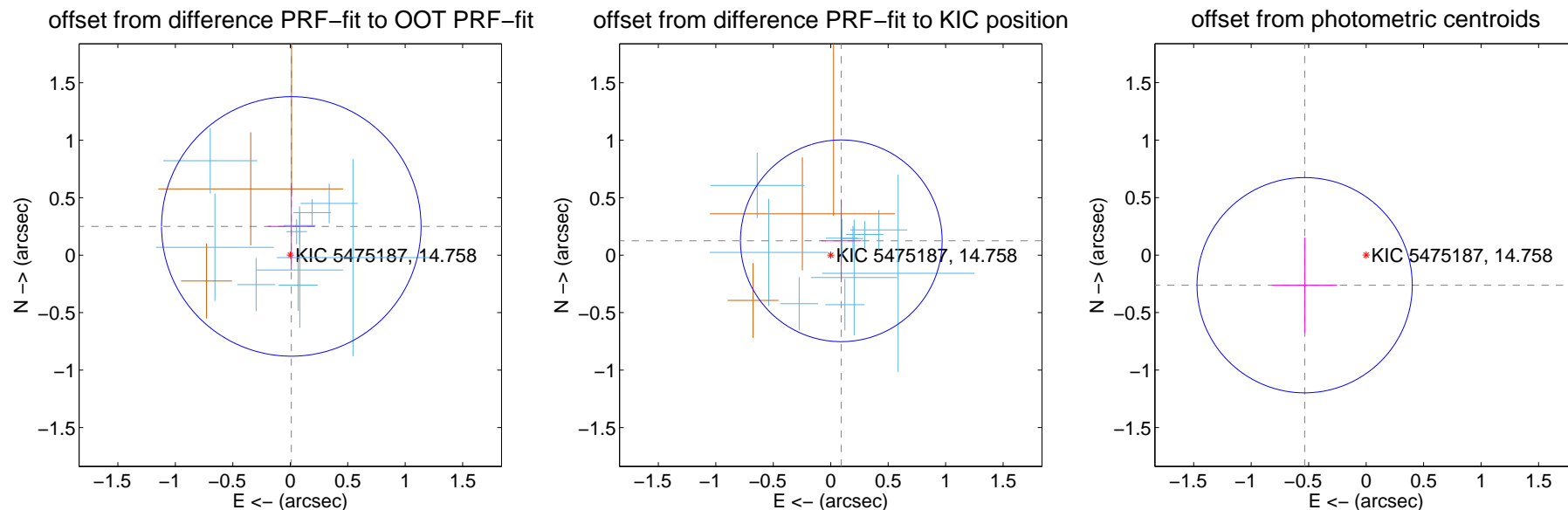
DV Centroid Data

Supplemental centroid analysis for 005475187-02. Kepler magnitude: 14.76. Transit SNR 9.95

There are 11 quarters with good PRF difference image offsets

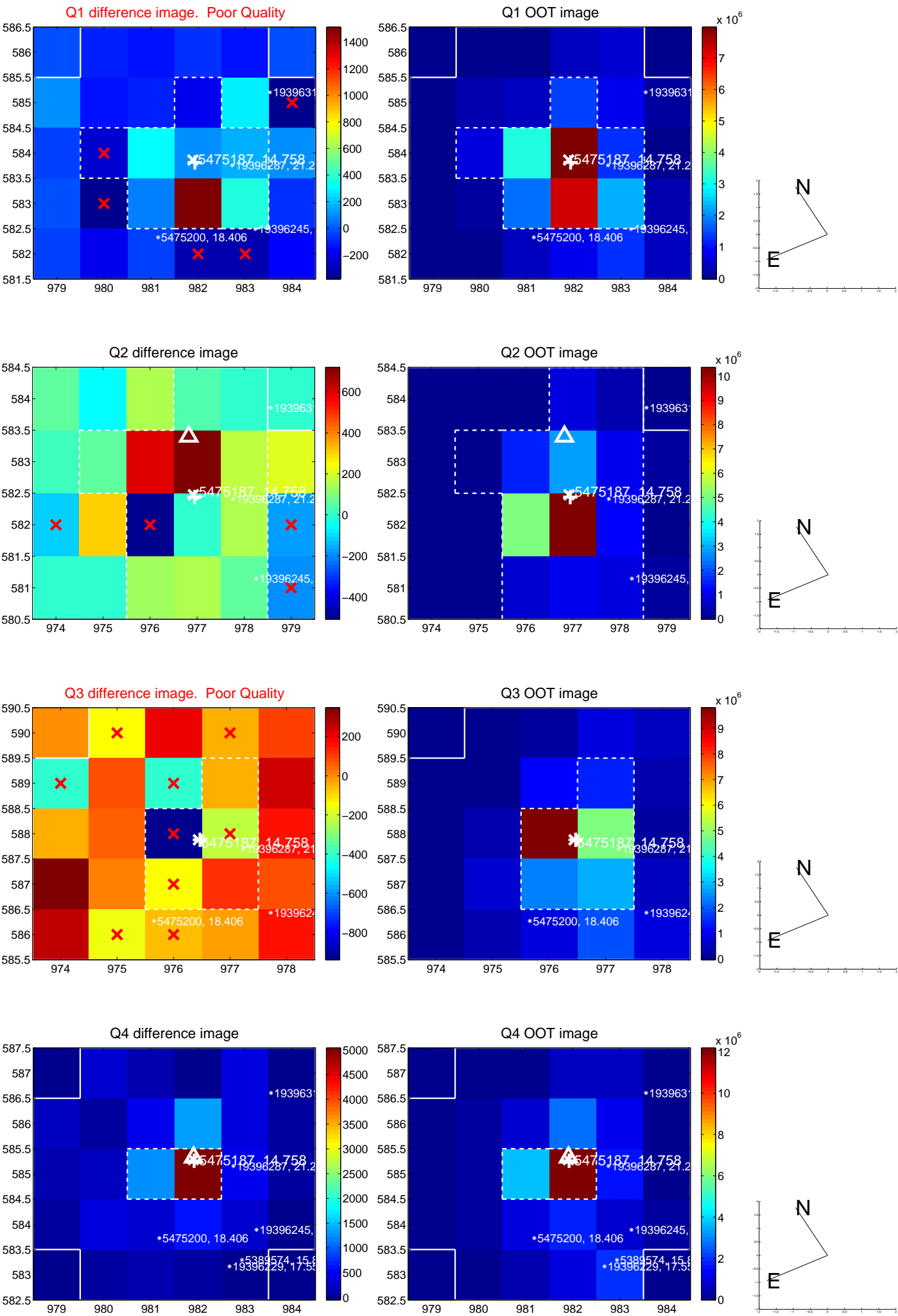
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.250 ± 0.376	0.66	-0.009 ± 0.206	0.250 ± 0.378
PRF-fit source offset from KIC position	0.155 ± 0.292	0.53	-0.092 ± 0.175	0.125 ± 0.360
photometric centroid source offset	0.60 ± 0.31	1.91	0.53 ± 0.28	-0.26 ± 0.41

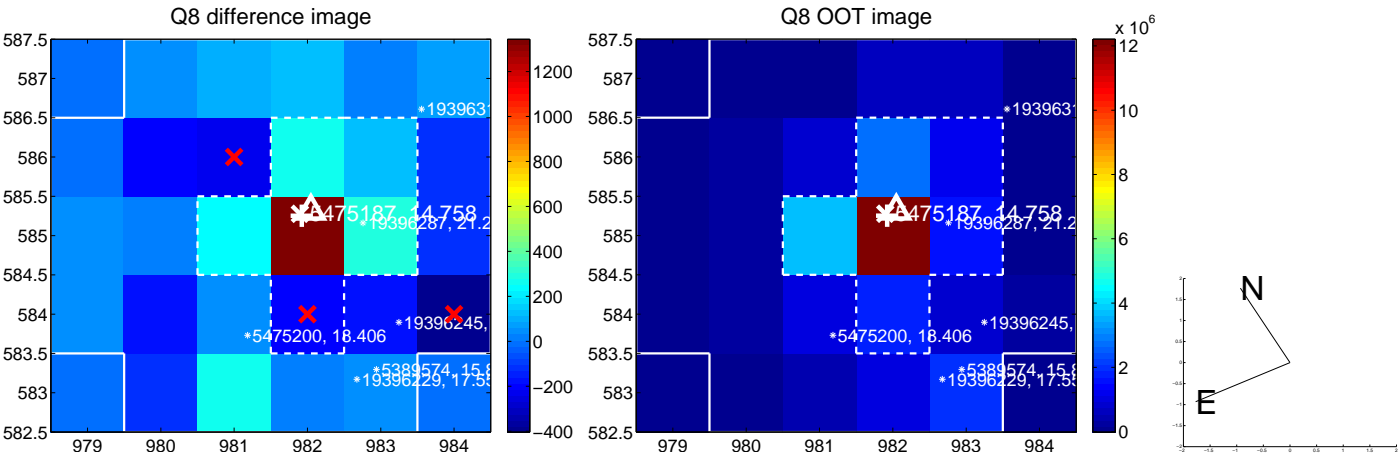
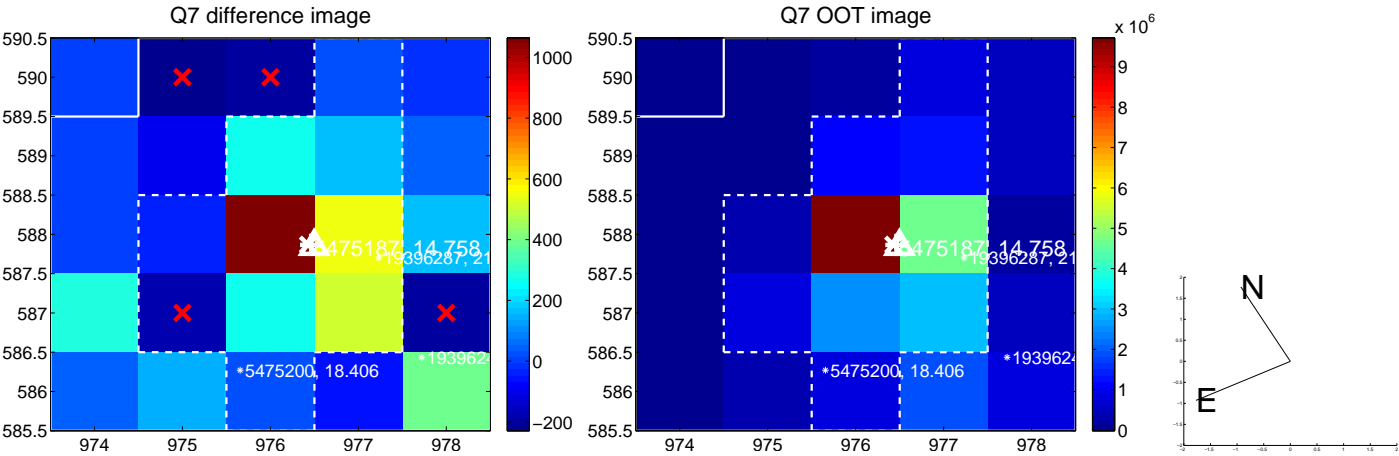
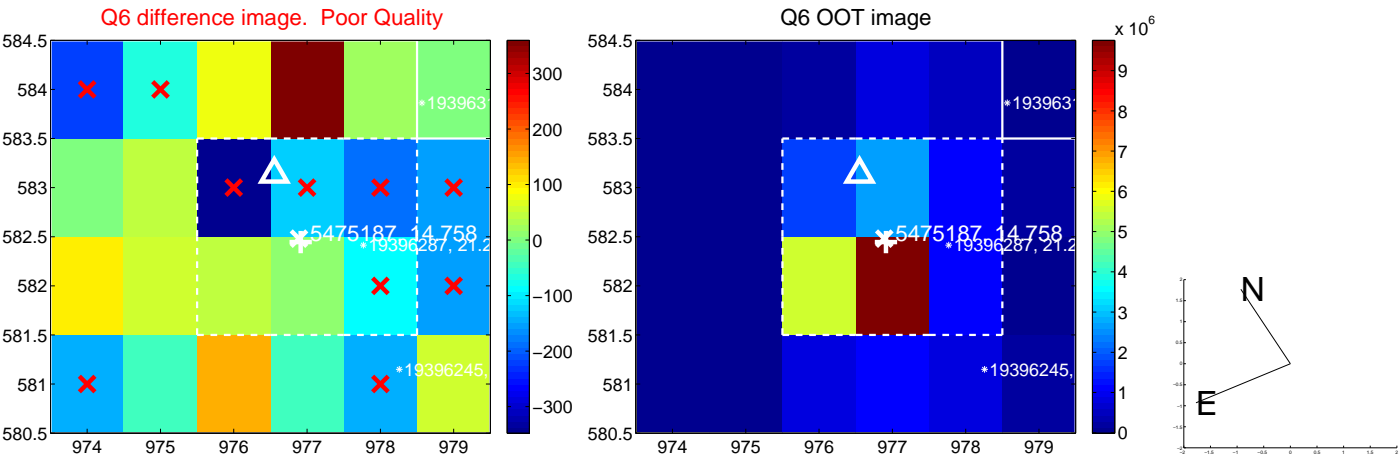
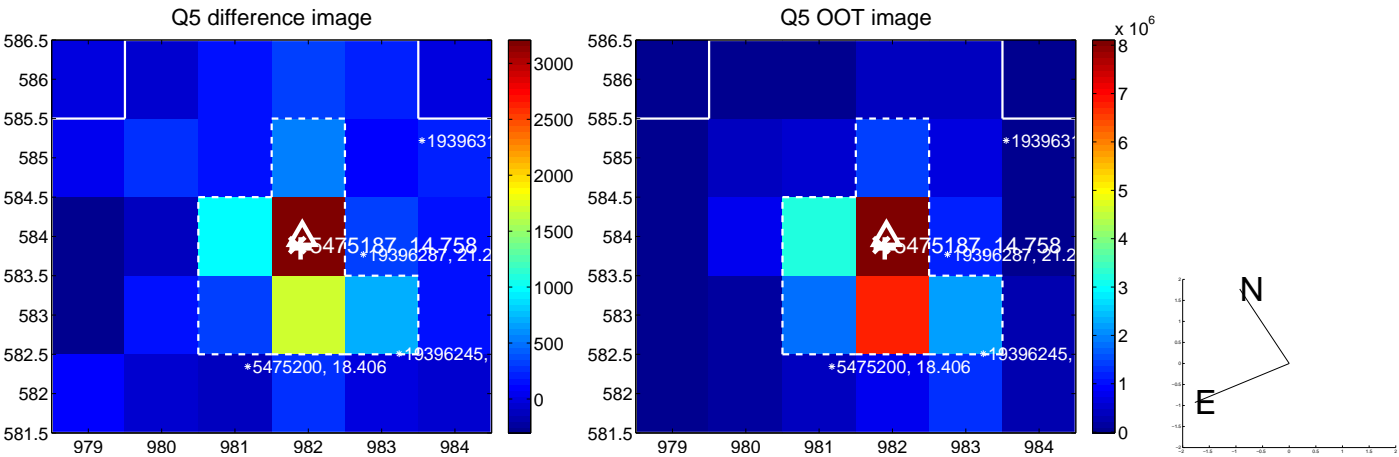


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses: good quarterly centroid offsets; Vermillion crosses: bad quarterly centroid offsets**; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

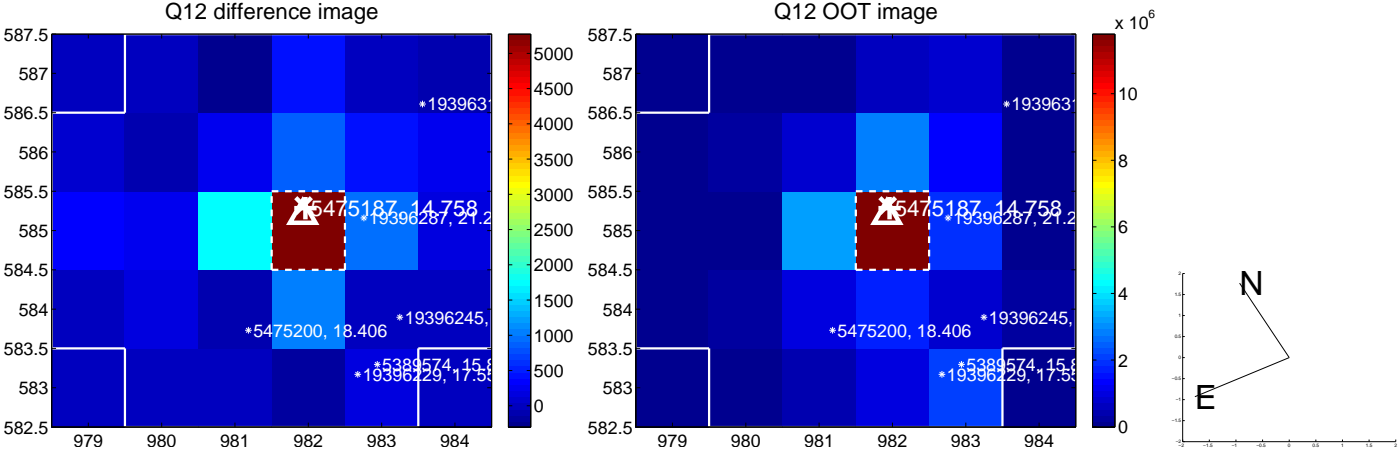
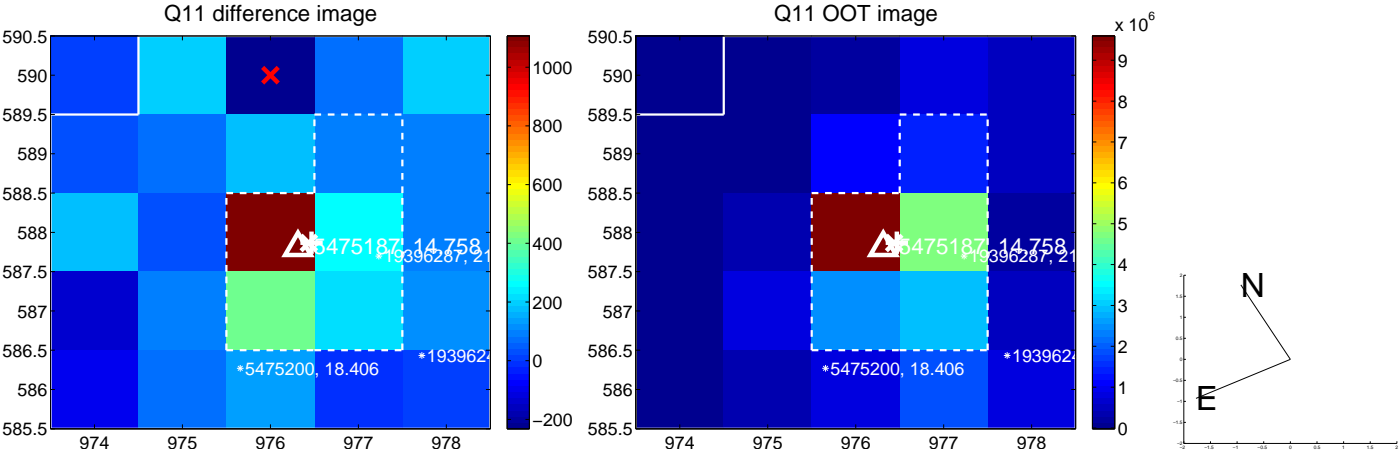
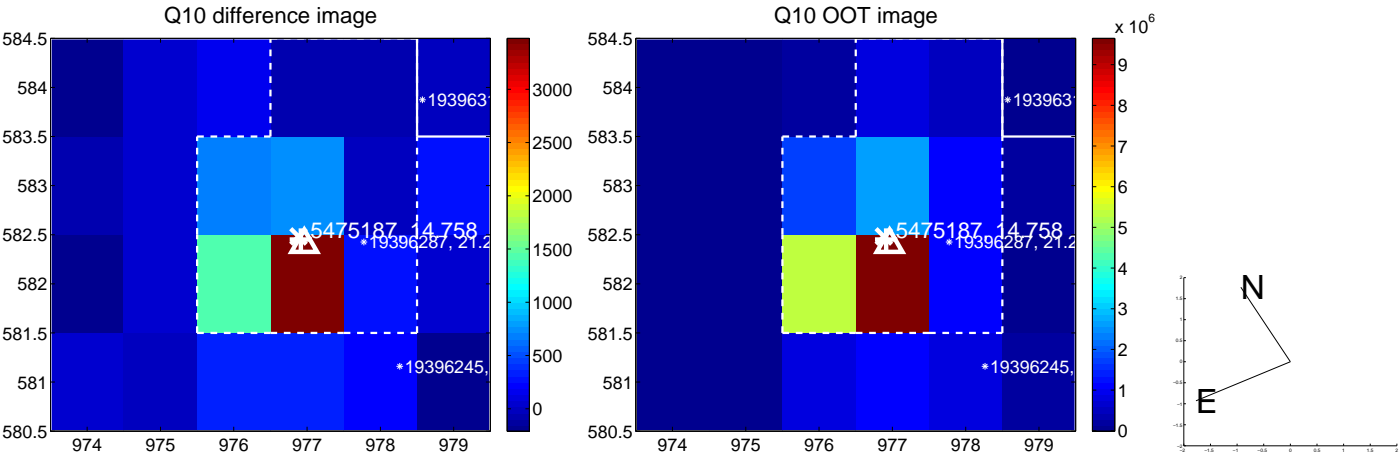
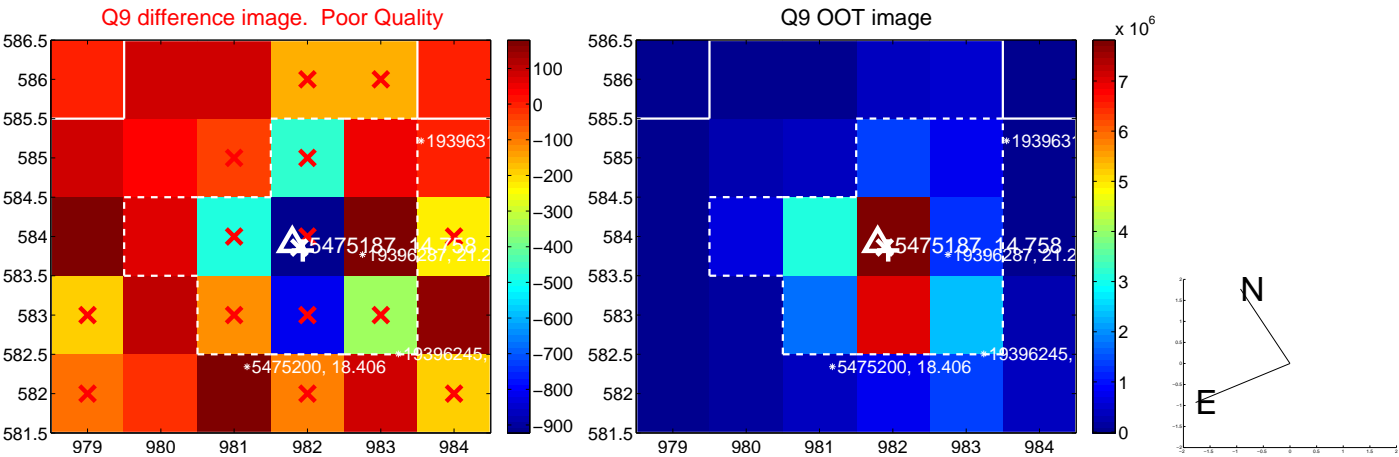
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



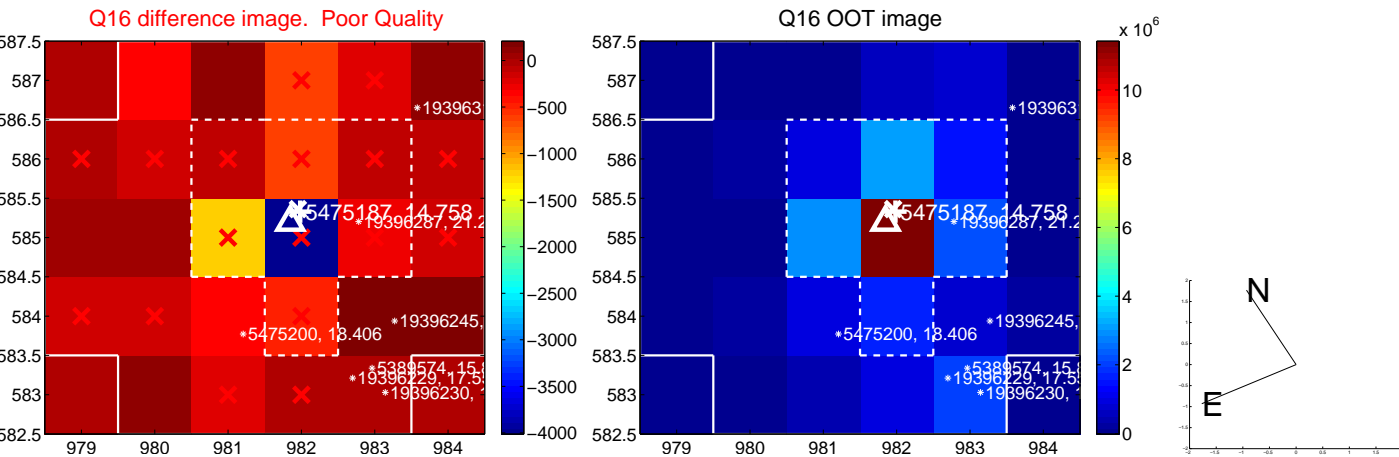
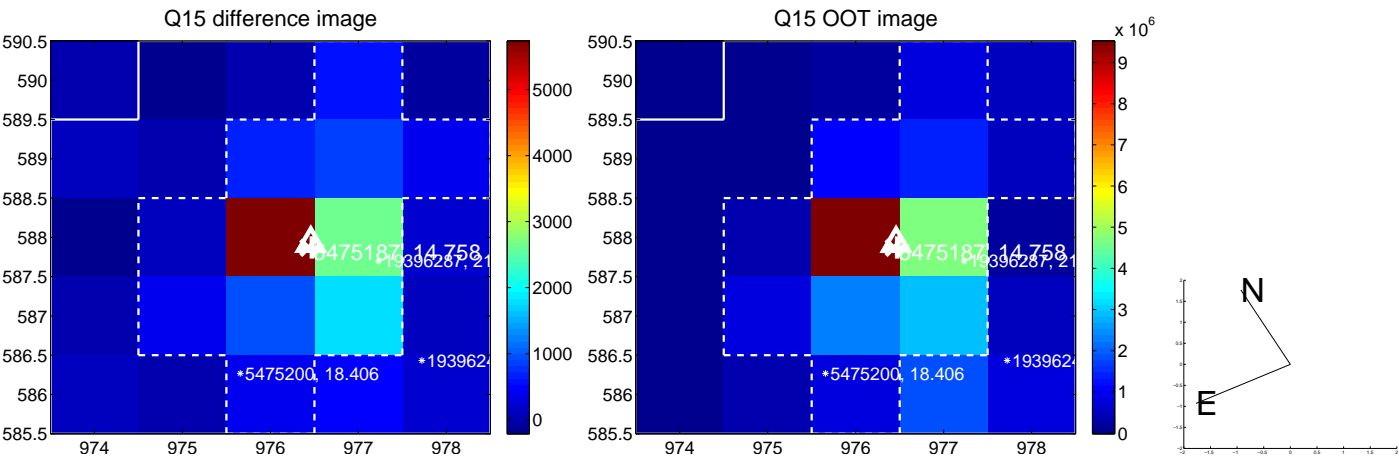
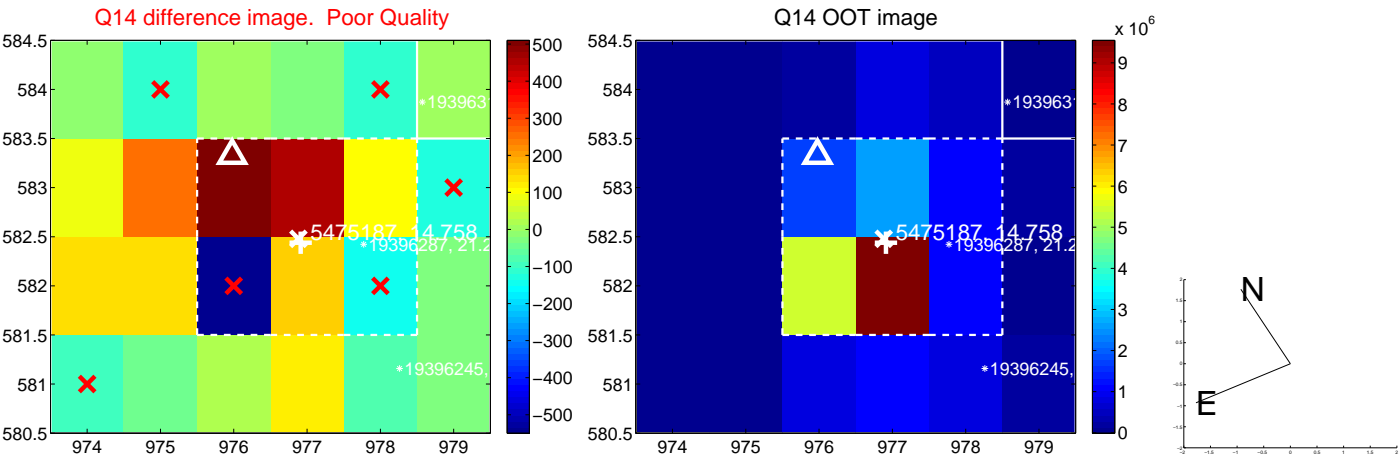
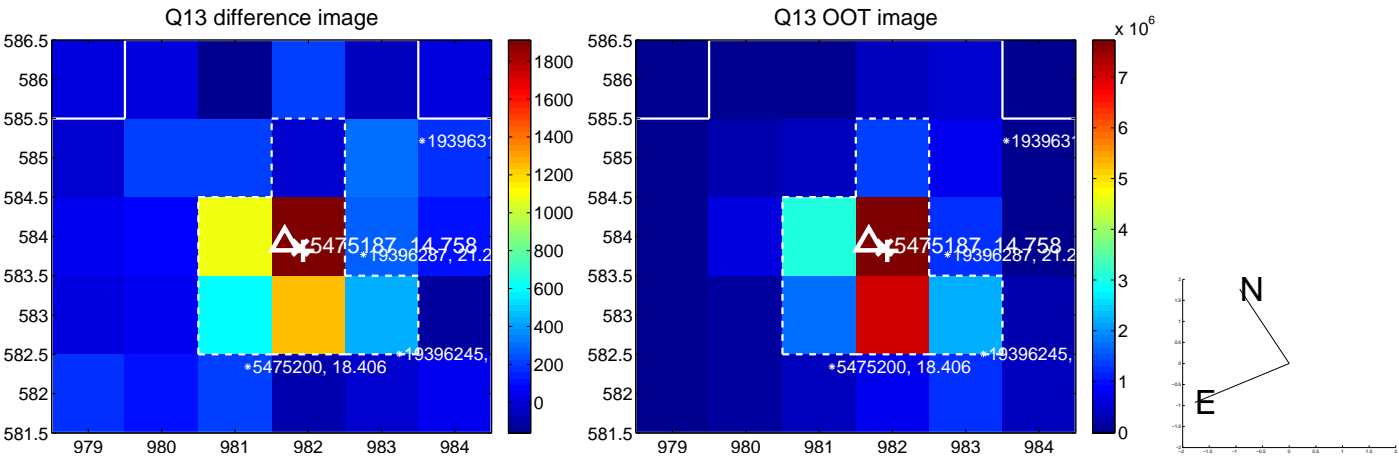
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



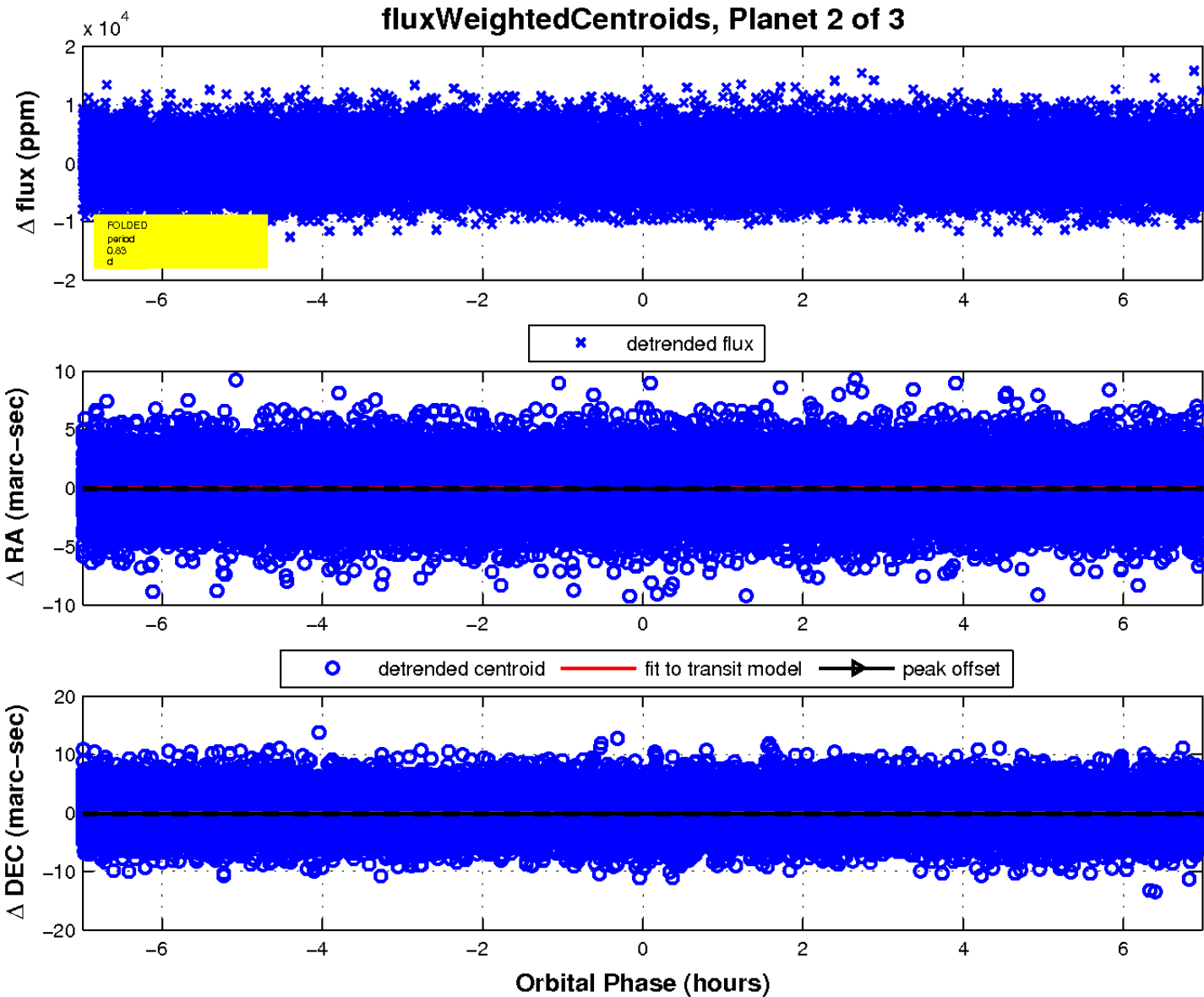
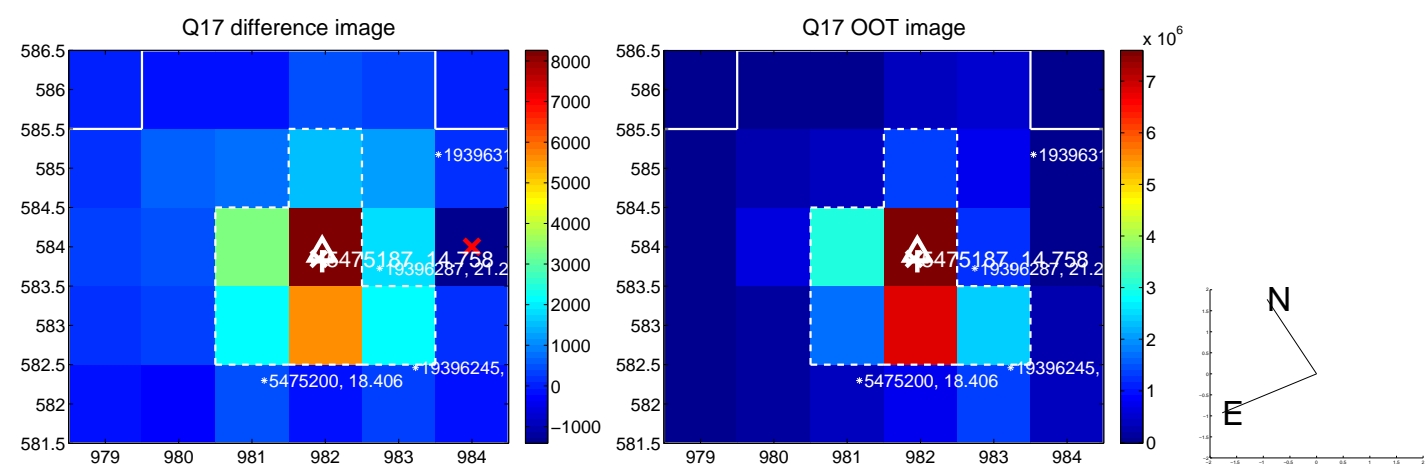
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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

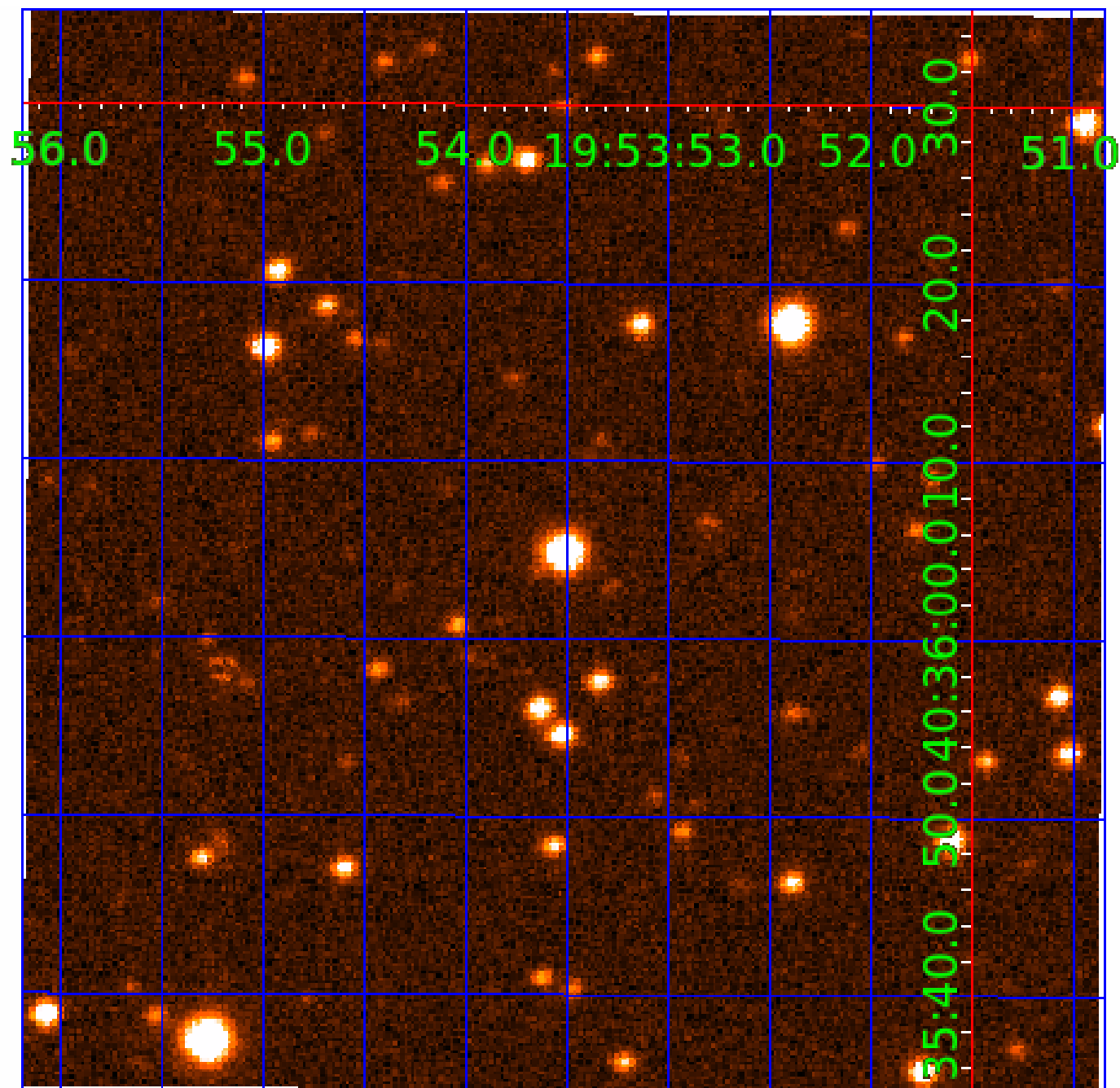


white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



UKIRT Image

Declination



KIC 005475187

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})
005475187-01	OBS	No	0.831942	132.303686	195.4	2.737	12.4	9.3	1.37	6890	2.24	10094.72
005475187-02	OBS	No	0.831950	131.890929	227.1	2.330	13.3	10.0	1.37	6890	2.41	10094.59
005475187-03	OBS	No	4.227360	132.877600	1457.0	3.442	8.7	9.3	1.37	6890	9.41	1155.56

Robovetter Results

TCE	Run Type	Disp	Score	N	S	C	E	Comments
005475187-01	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT
005475187-02	OBS	FP	0.00	1	0	0	0	LPP_DV—LPP_ALT—MOD_NONUNIQ_DV—MOD_NONUNIQ_ALT—SAME_NTL_PERIOD
005475187-03	OBS	FP	0.00	1	0	0	0	INDIV_TRANS_RUBBLE_SKYE_ZUMA—TRANS_GAPPED—LPP_DV—MOD_NONUNIQ_DV—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.

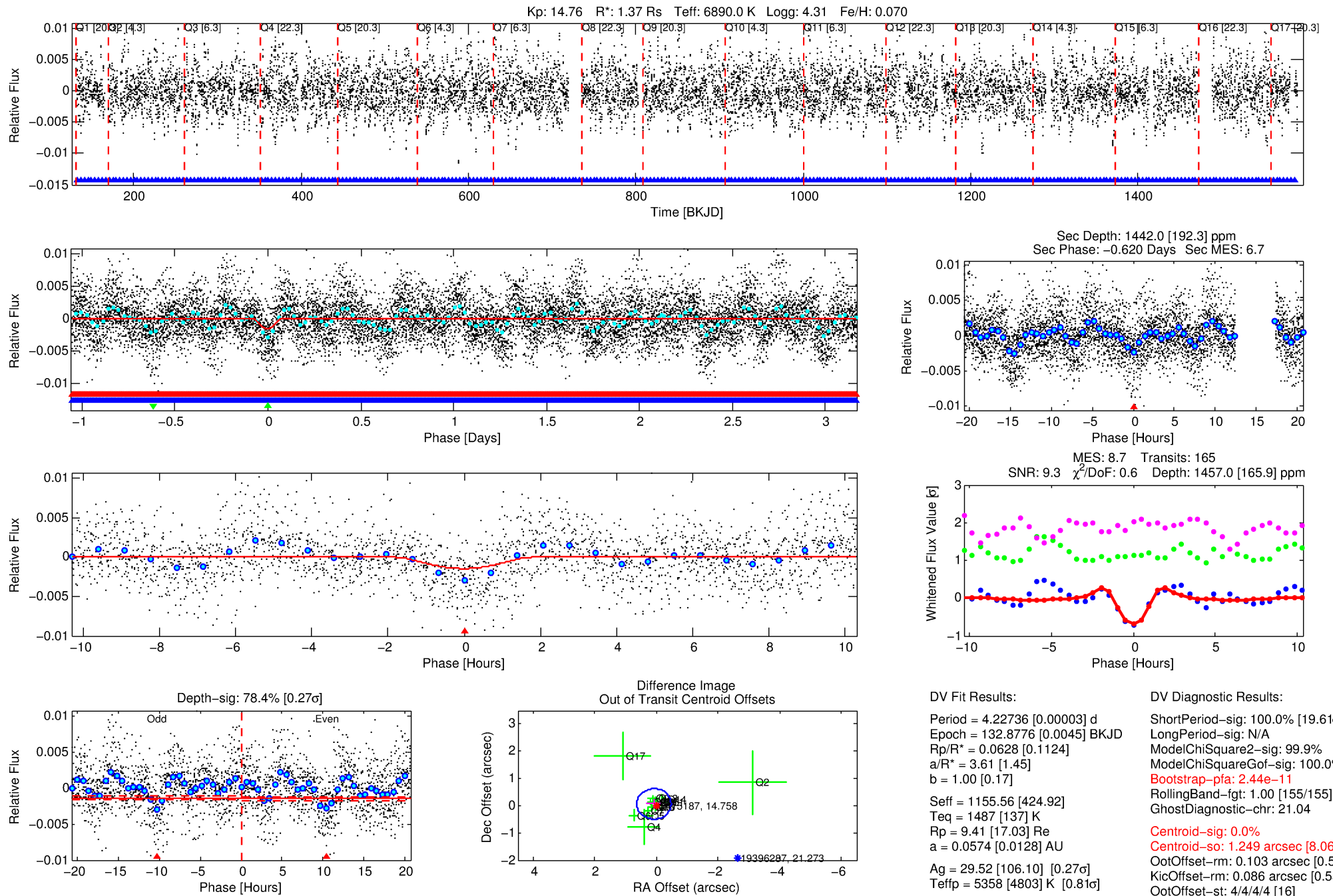
See http://exoplanetarchive.ipac.caltech.edu/docs/API_kepcandidate_columns.html#proj_disp_col for comment definitions.

Ephemeris Match Information For 005475187-03

No Significant Match Found

DV One-Page Summary

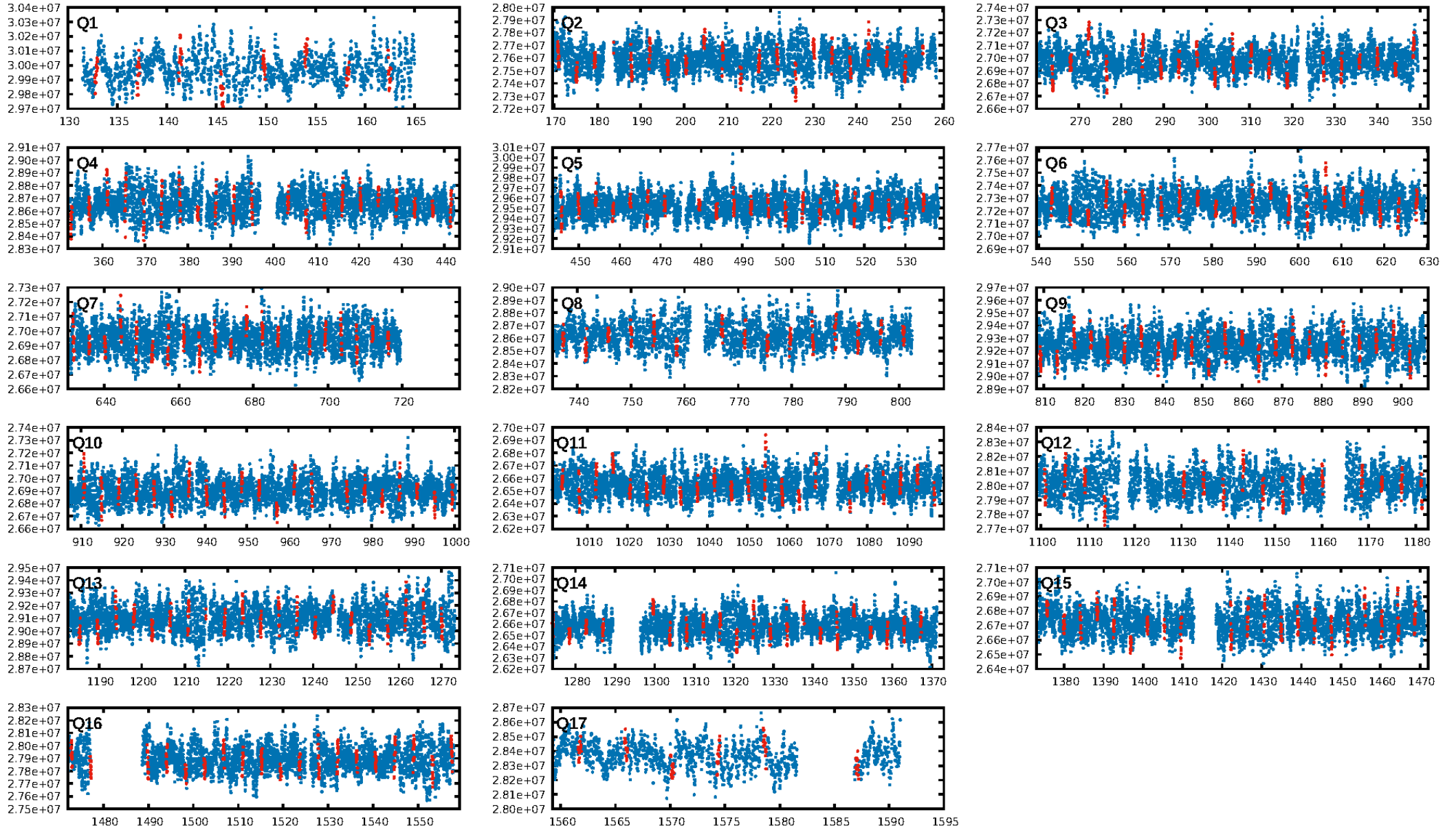
KIC: 5475187 Candidate: 3 of 3 Period: 4.227 d



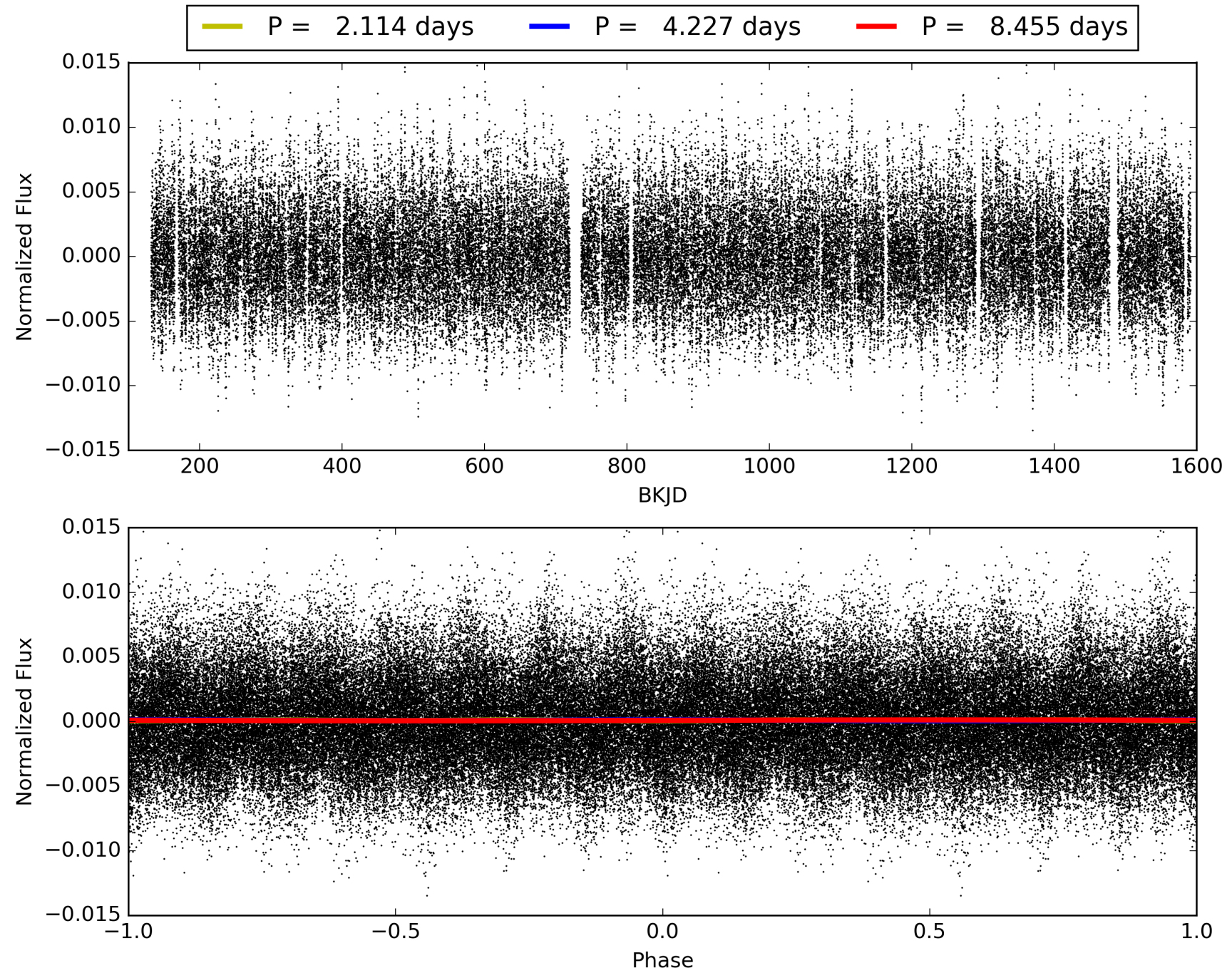
Software Revision: svn+ssh://murzim/repo/soc/tags/release/9.3.42@60958 -- Date Generated: 30-Jan-2016 09:14:12 Z

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

TCE 005475187-03, PDC Light Curves

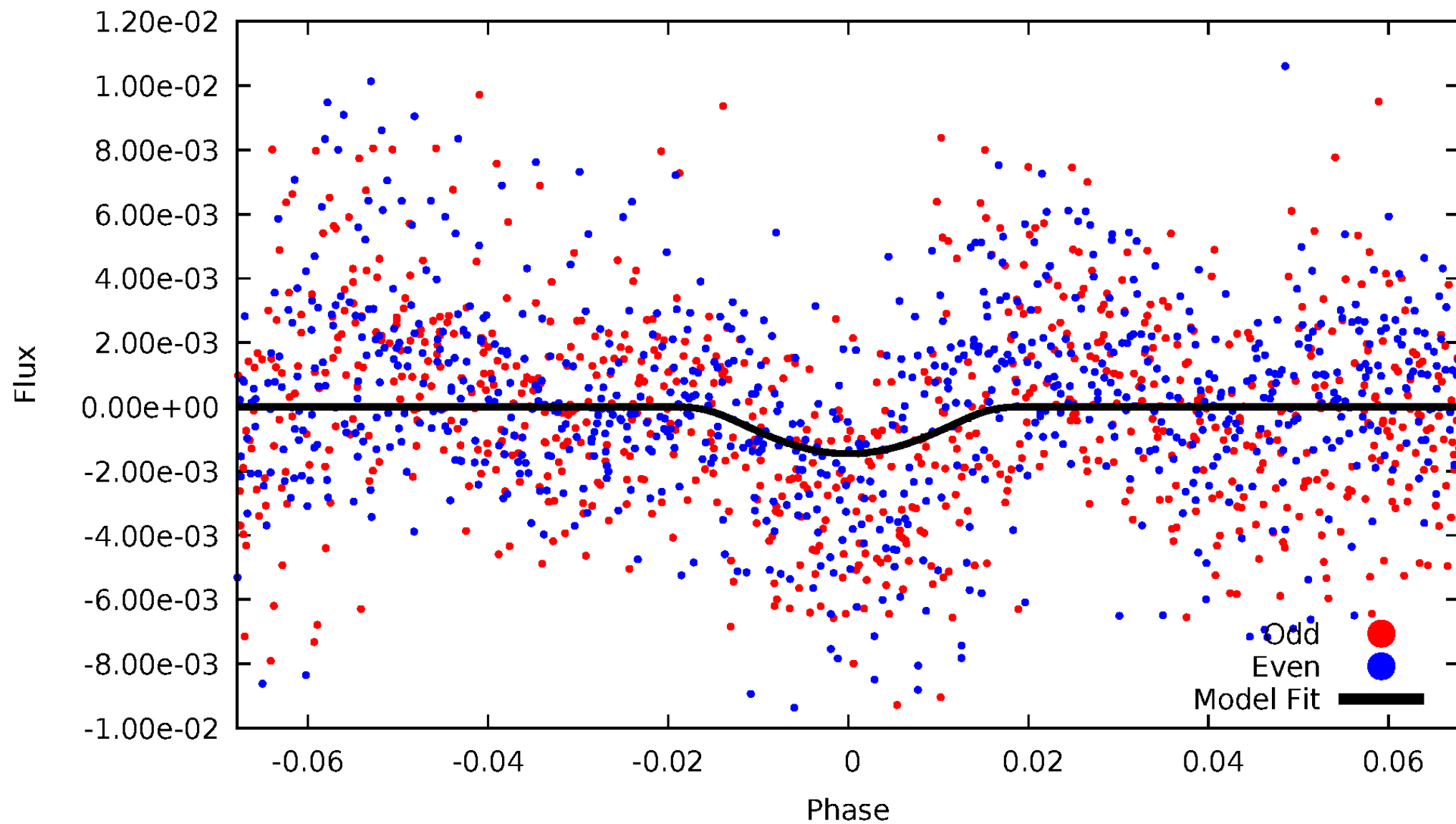


TCE 005475187-03



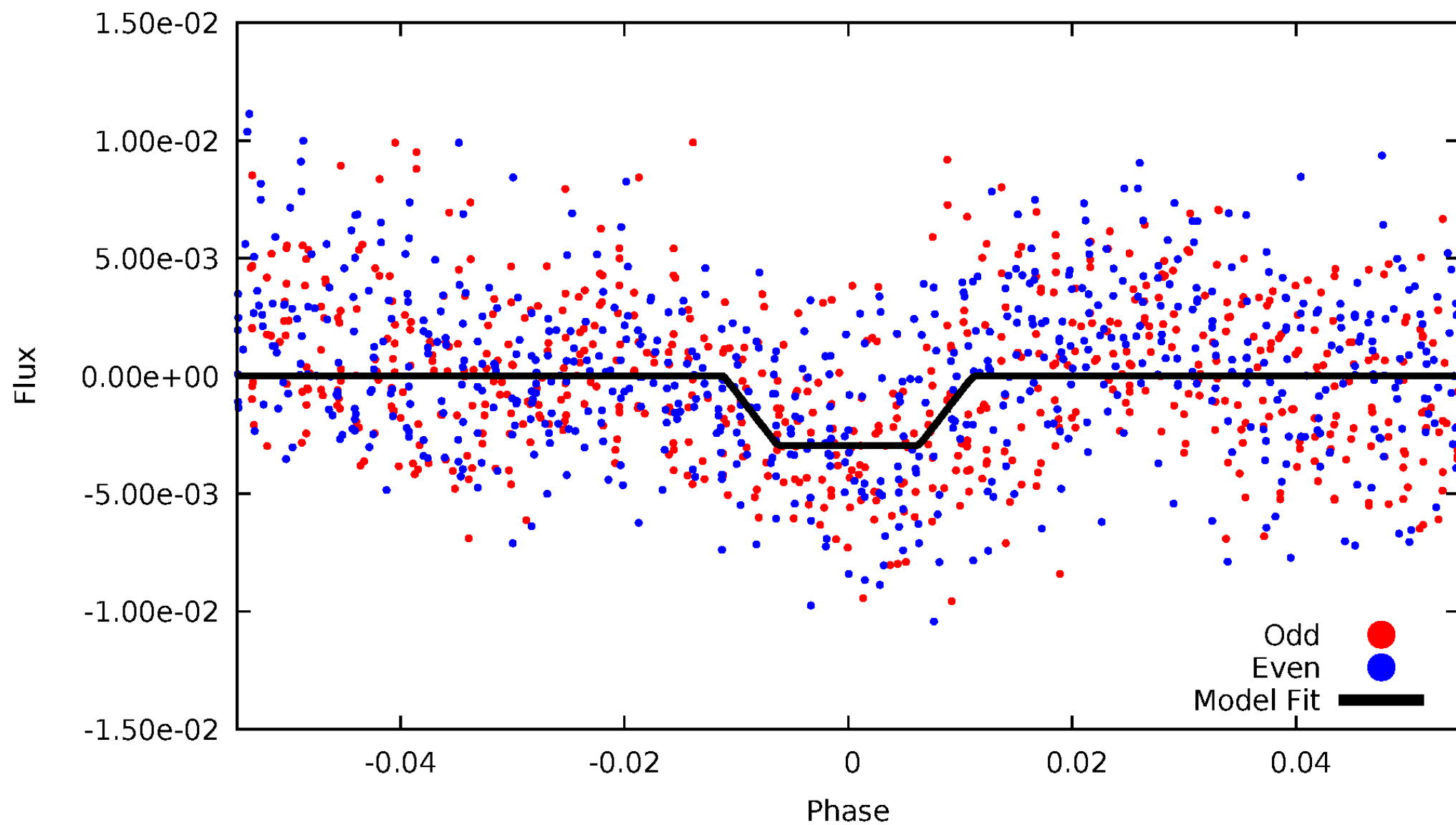
DV Odd/Even

TCE 005475187-03



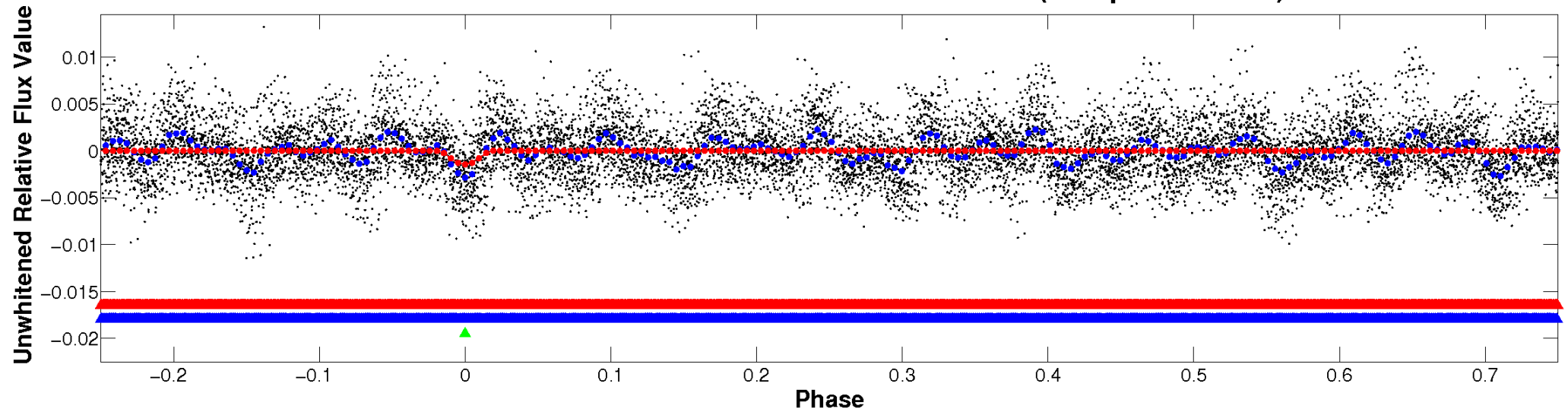
ALT Odd/Even

TCE 005475187-03

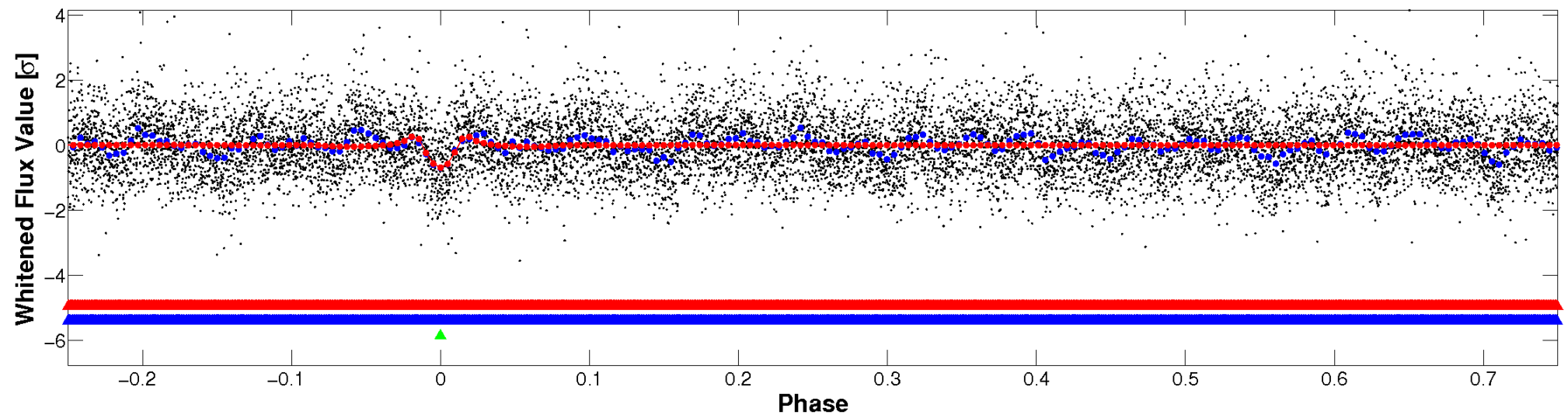


Non-Whitened Vs. Whitened Light Curve

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

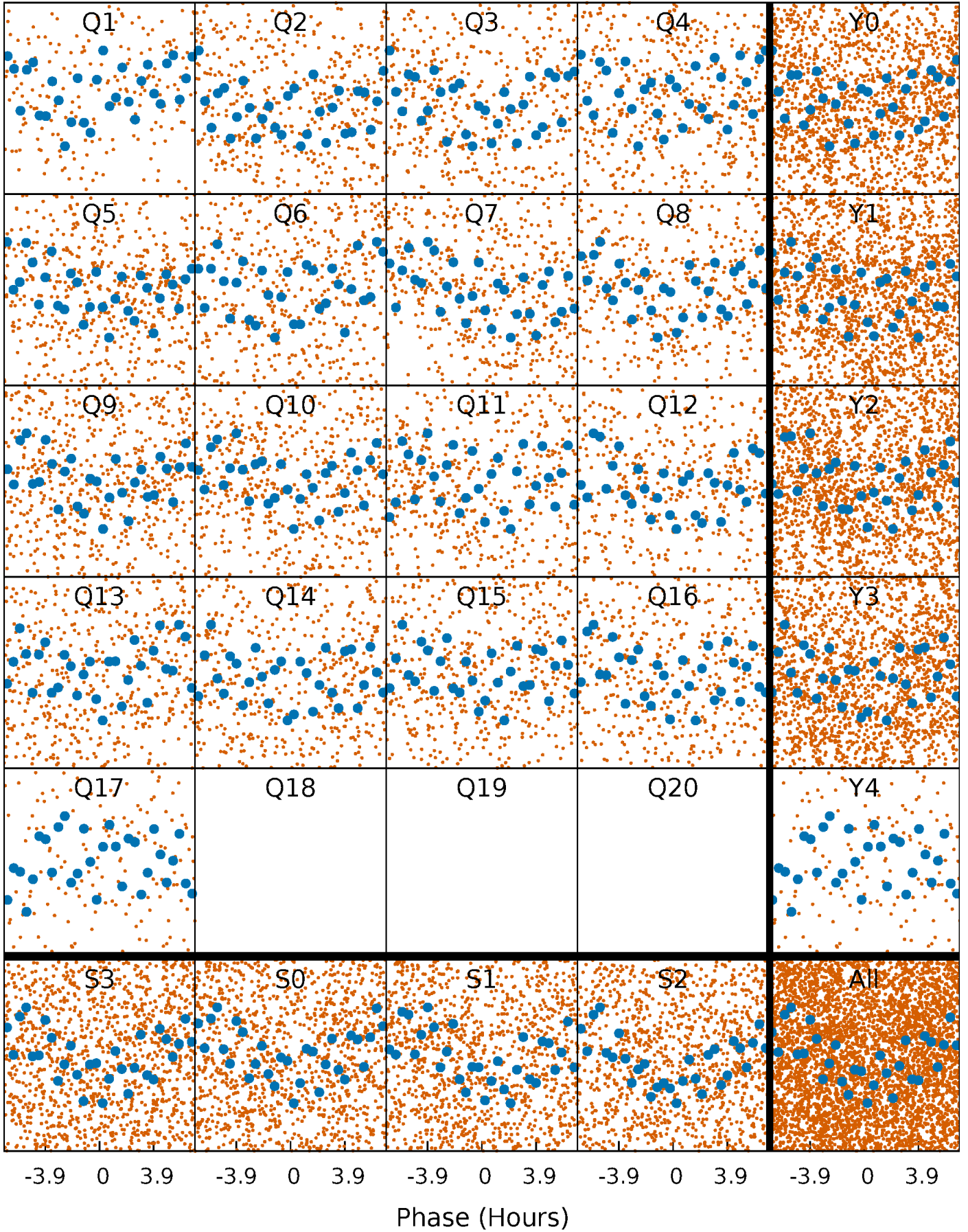


Planet 3 : Phased Whitened Flux Time Series (Fit Epoch/Period)



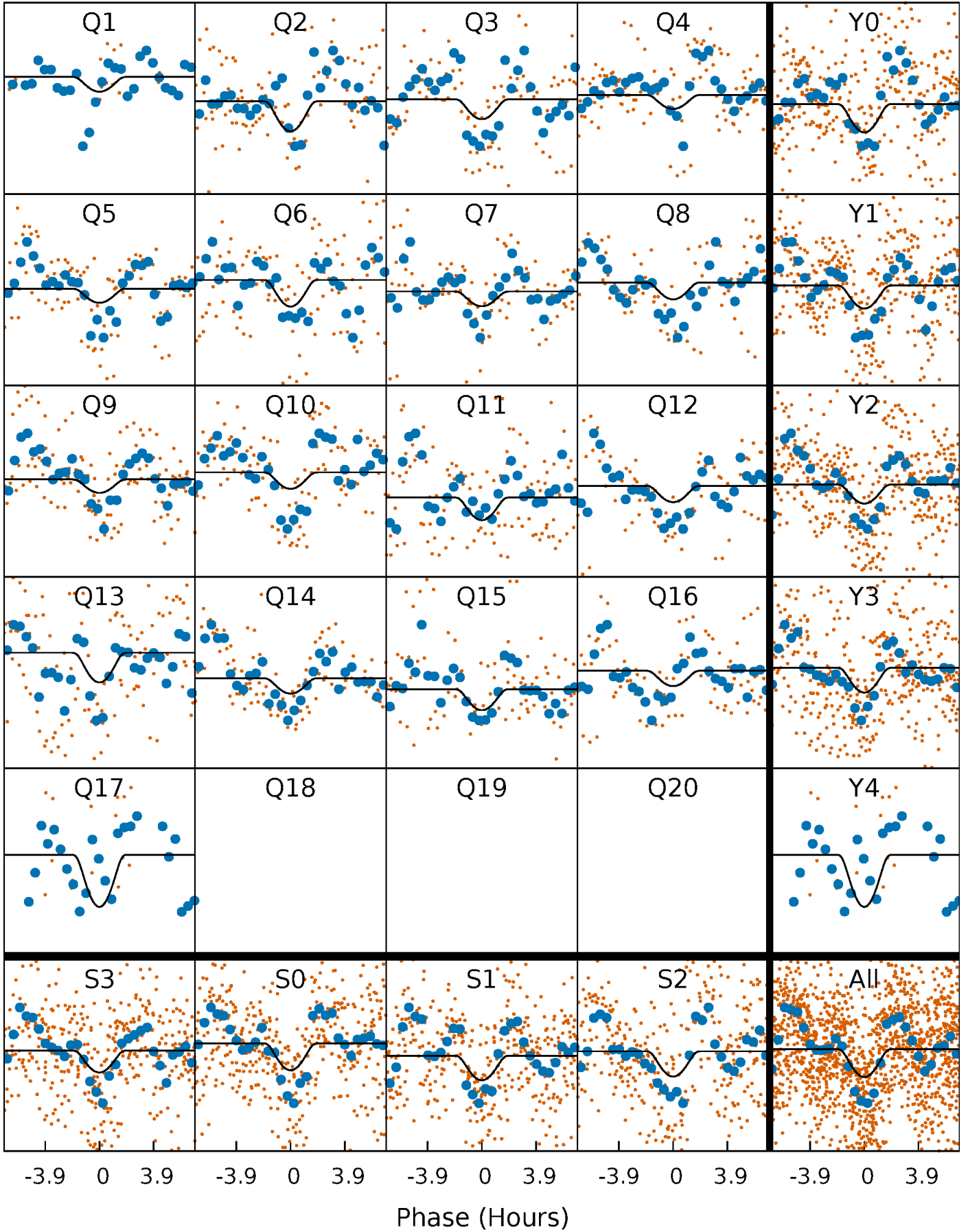
PDC Quarter-Phased Transit Curves

TCE 005475187-03 P= 4.227360 Days $T_0=132.877600$ (BKJD)



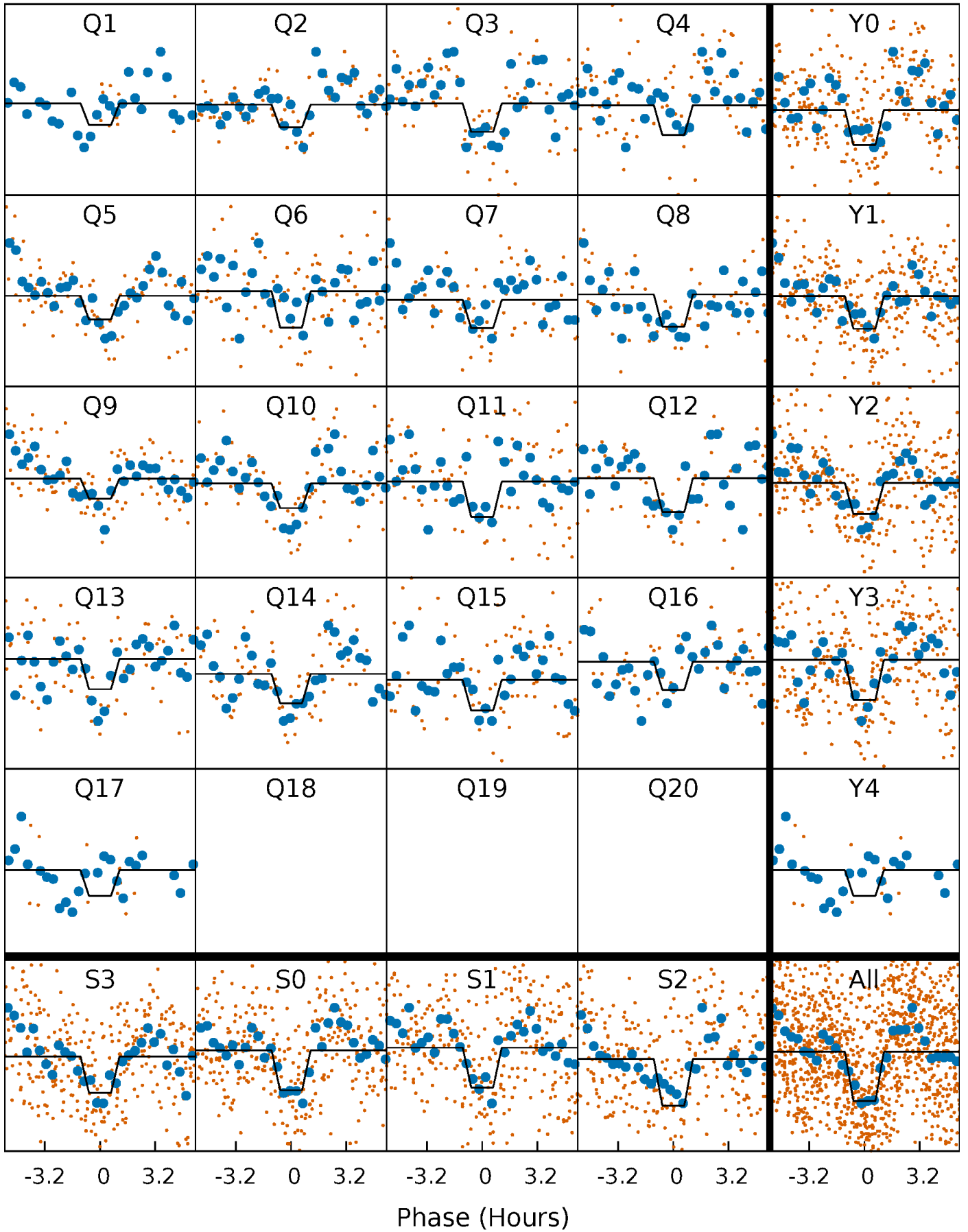
DV Quarter-Phased Transit Curves

TCE 005475187-03 P= 4.227360 Days $T_0=132.877600$ (BKJD)



Alt. Detrend Quarter-Phased Transit Curves

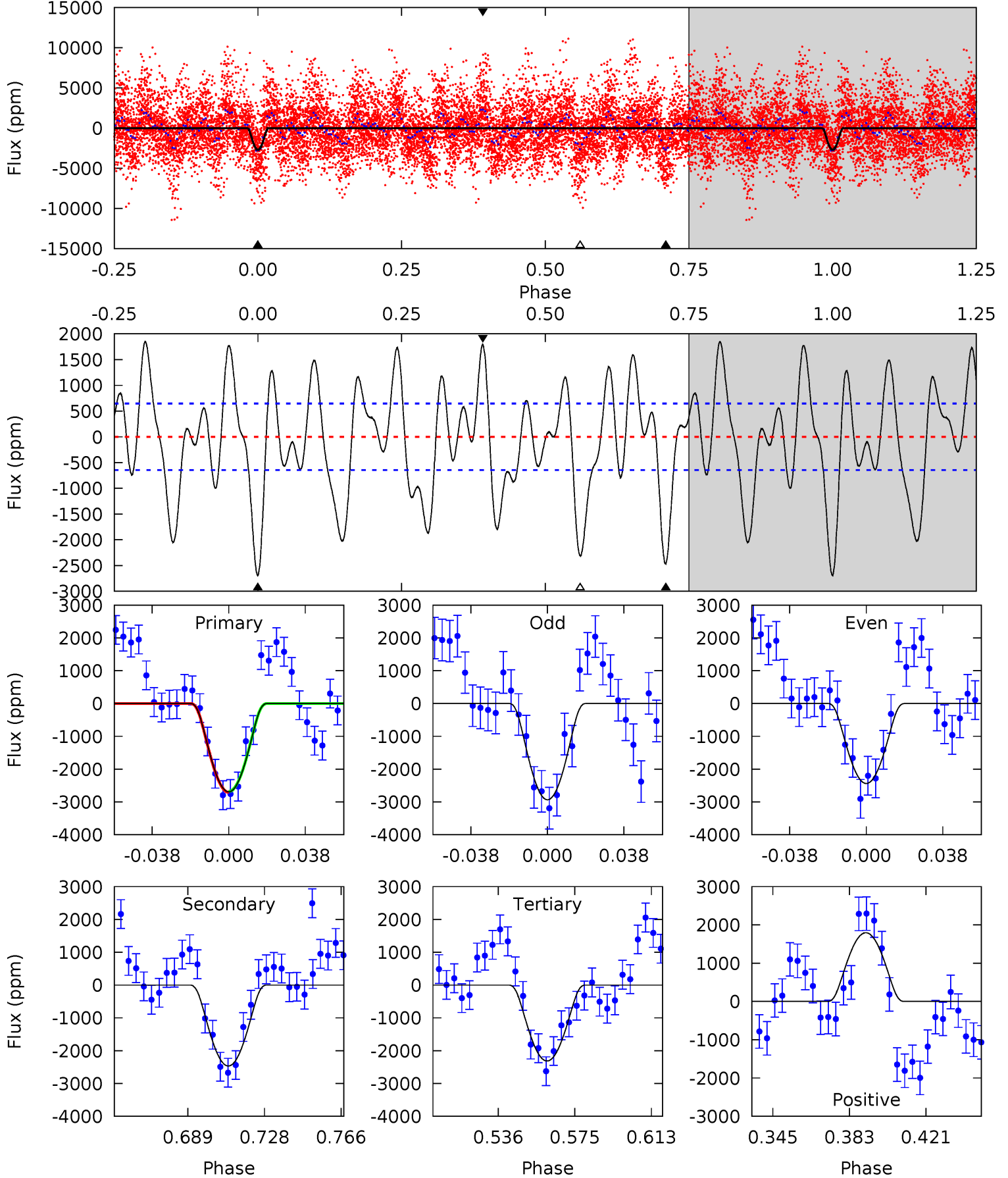
TCE 005475187-03 P= 4.227383 Days $T_0=132.876683$ (BKJD)



DV Model-Shift Uniqueness Test

005475187-03, P = 4.227360 Days, E = 128.650240 Days

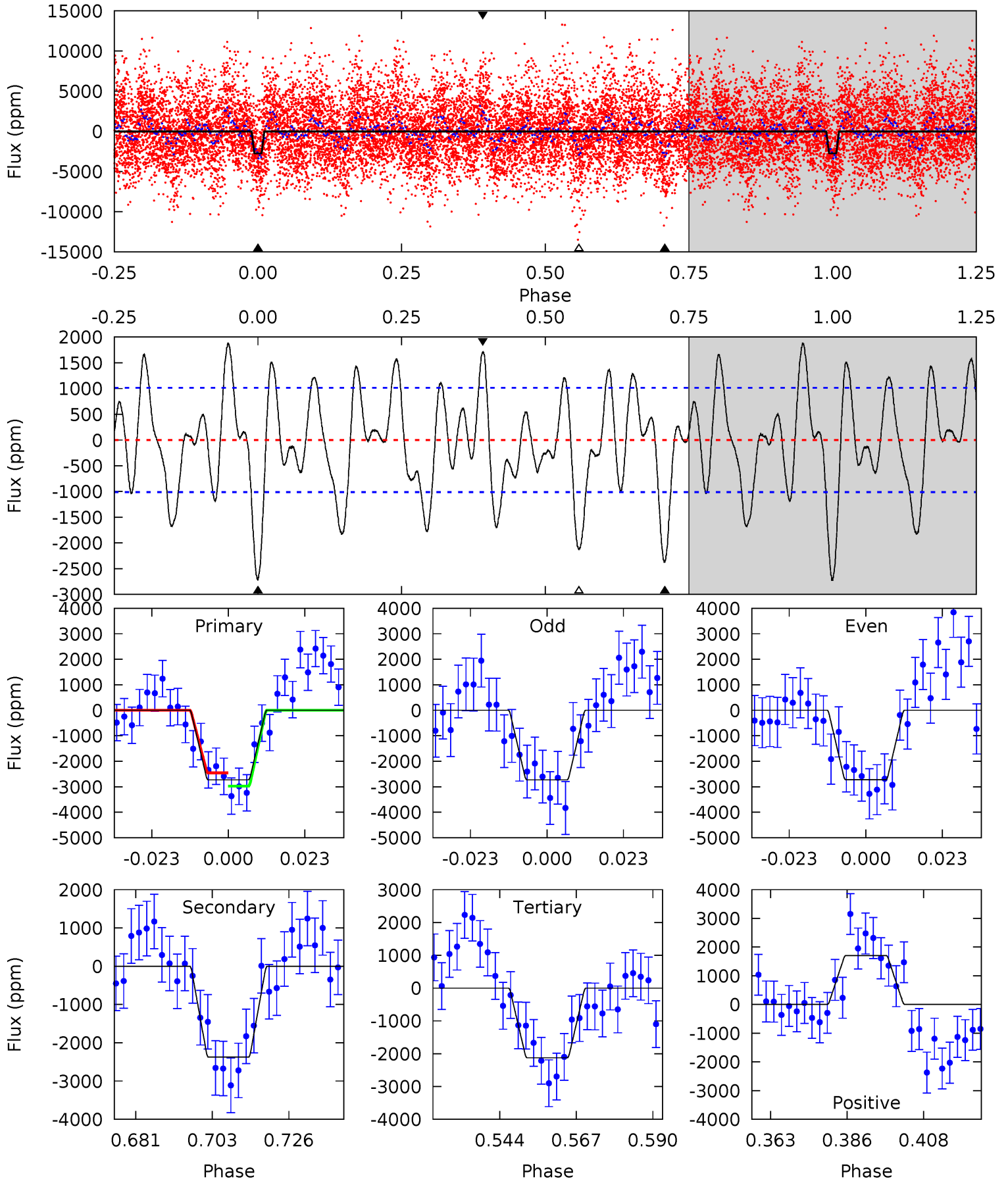
Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
19.9	18.2	17.1	13.2	4.76	2.07	7.07	2.80	6.63	1.12	4.95	1.85	0.10	0.41	0.10



Alt Model-Shift Uniqueness Test

005475187-03, P = 4.227383 Days, E = 128.649300 Days

Pri	Sec	Ter	Pos	FA ₁	FA ₂	F _{Red}	Pri-Ter	Pri-Pos	Sec-Ter	Sec-Pos	Odd-Evn	DMM	Shape	TAT
13.1	11.4	10.2	8.21	4.87	2.28	4.07	2.90	4.90	1.20	3.20	0.01	0.87	0.41	1.24



Stellar Parameters For KIC 005475187

	$T_{\text{eff}}(K)$	$\log(g)$	[Fe/H]	$R (R_{\odot})$	$M(M_{\odot})$	$p_{\star} (\text{g}\cdot\text{cm}^{-3})$
	6890^{+189}_{-324}	$4.312^{+0.072}_{-0.168}$	$0.070^{+0.200}_{-0.350}$	$1.373^{+0.376}_{-0.202}$	$1.411^{+0.163}_{-0.224}$	$0.767^{+0.249}_{-0.368}$
	+3%/-5%	+2%/-4%	+286%/-500%	+27%/-15%	+12%/-16%	+32%/-48%
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 005475187-03 / KOI

Detrend	Depth (ppm)	$R_p (R_{\oplus})$	$T_{max} (K)$	$T_{obs} (K)$	A_{obs}
DV	-2466 ± 136	$14.95^{+15.40}_{-9.81}$	2096^{+133}_{-113}	4946^{+3707}_{-1157}	20^{+148}_{-15}
Alt.	-2374 ± 208	$15.40^{+14.79}_{-10.45}$	2095^{+147}_{-113}	4884^{+3810}_{-1131}	17^{+149}_{-13}

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 $A_{obs} \gg 1.0$

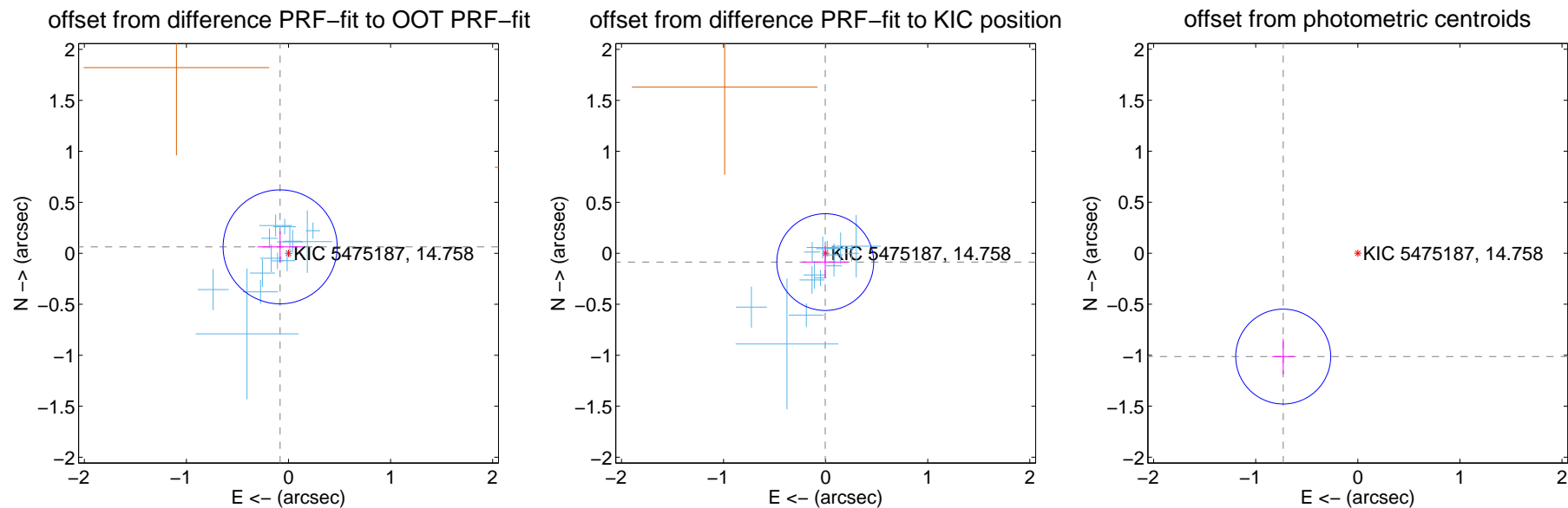
DV Centroid Data

Supplemental centroid analysis for 005475187-03. Kepler magnitude: 14.76. Transit SNR 9.29

There are 14 quarters with good PRF difference image offsets

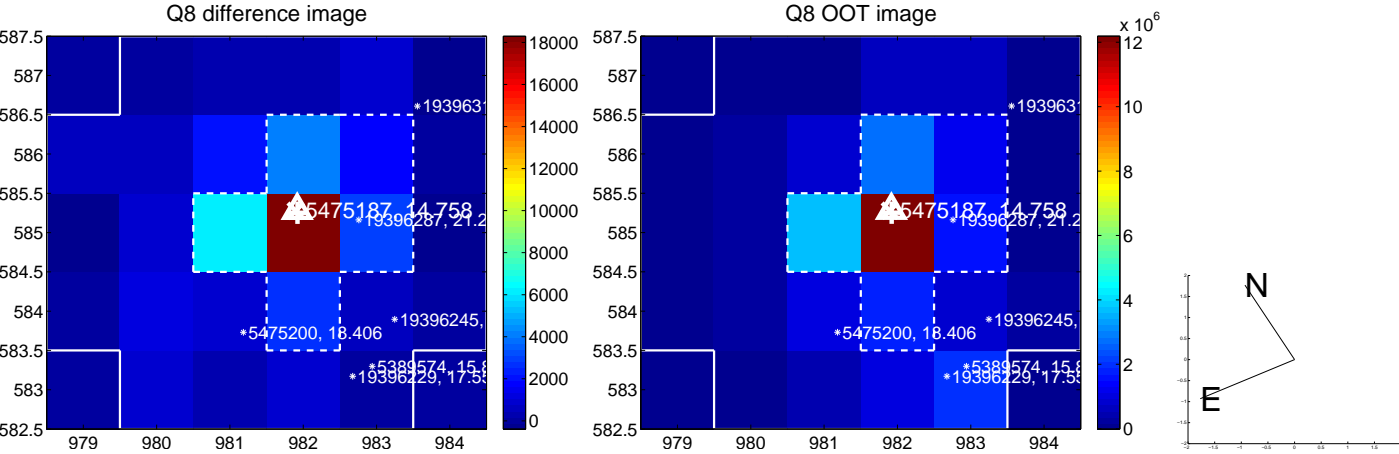
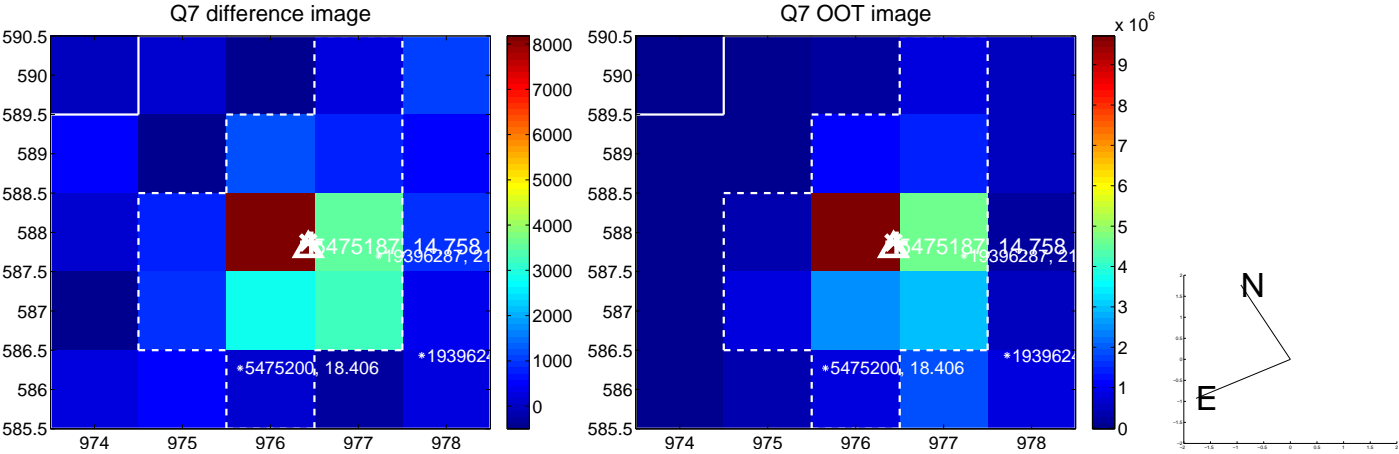
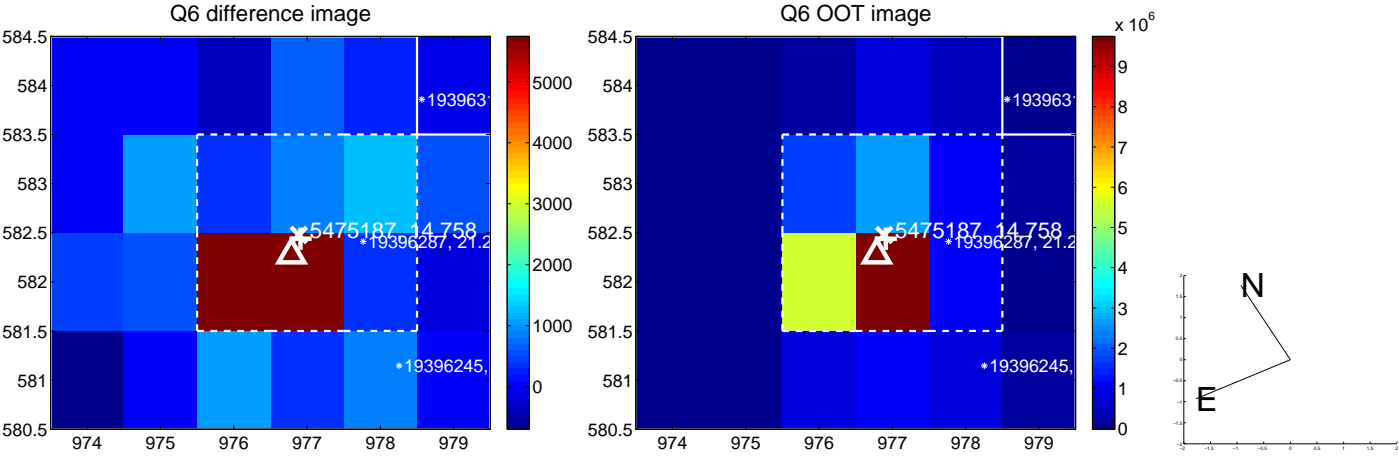
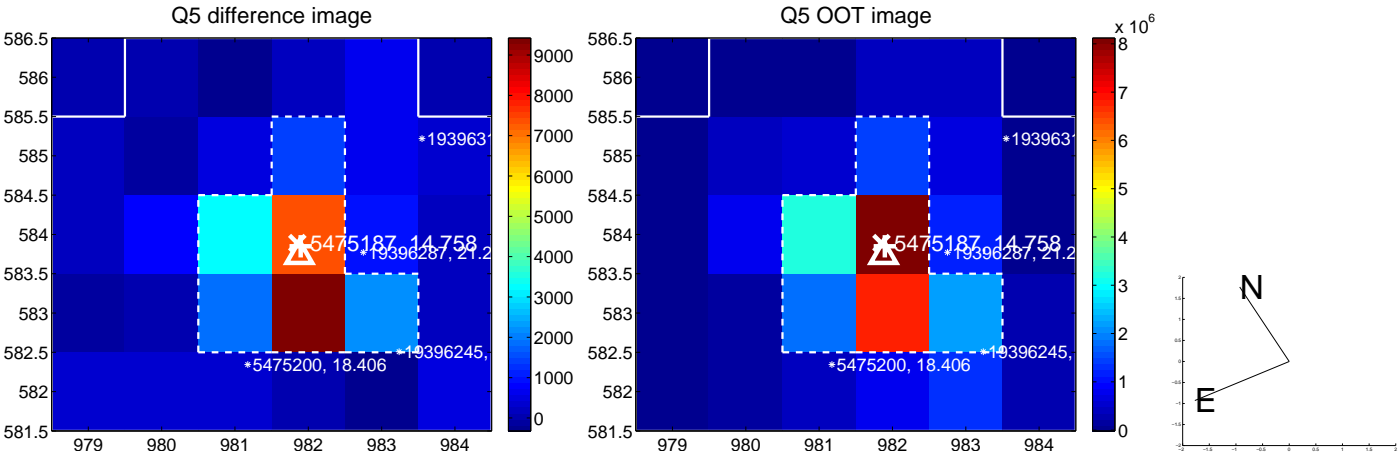
The direct PRF centroid is offset from the target star catalog position by about 0.22 arcsec

	Distance in arcsec	Distance / σ	Δ RA	Δ Dec
PRF-fit source offset from OOT	0.103 ± 0.186	0.55	0.082 ± 0.221	0.063 ± 0.154
PRF-fit source offset from KIC position	0.086 ± 0.158	0.55	0.004 ± 0.227	-0.086 ± 0.156
photometric centroid source offset	1.25 ± 0.15	8.06	0.73 ± 0.11	-1.01 ± 0.17

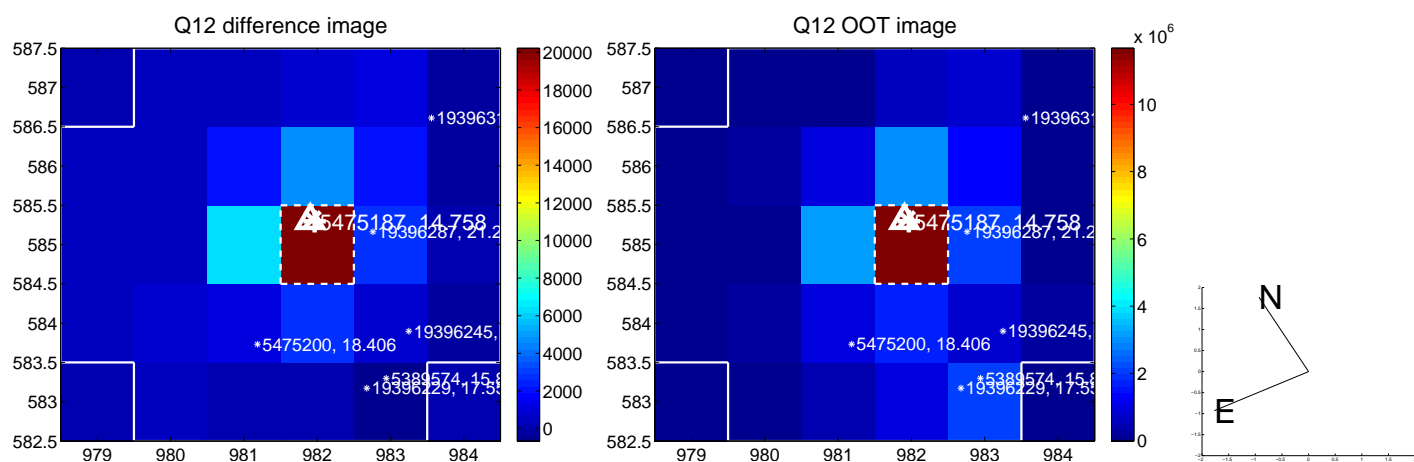
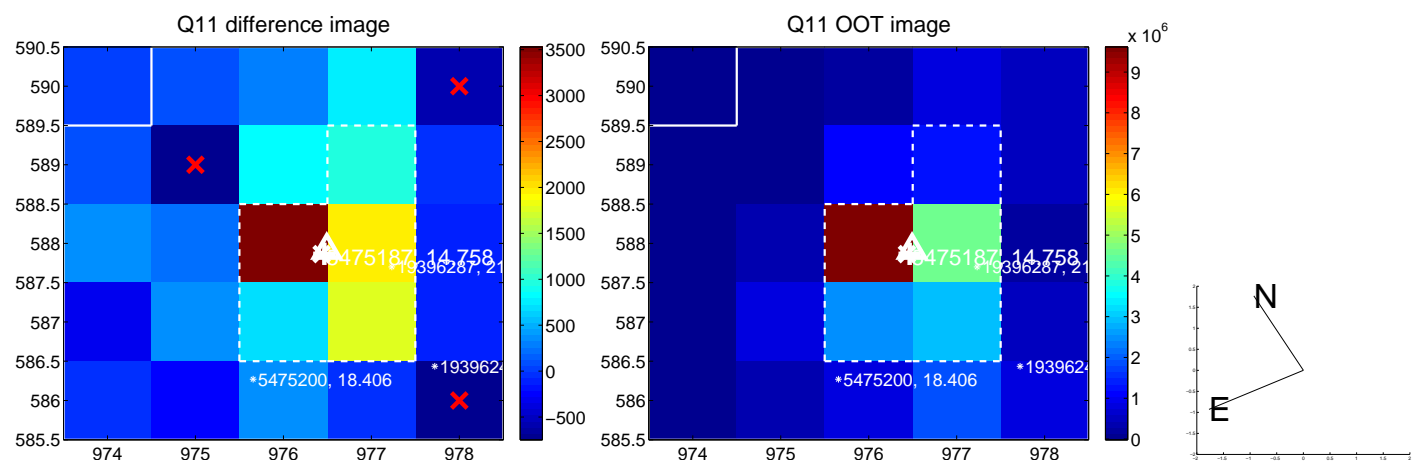
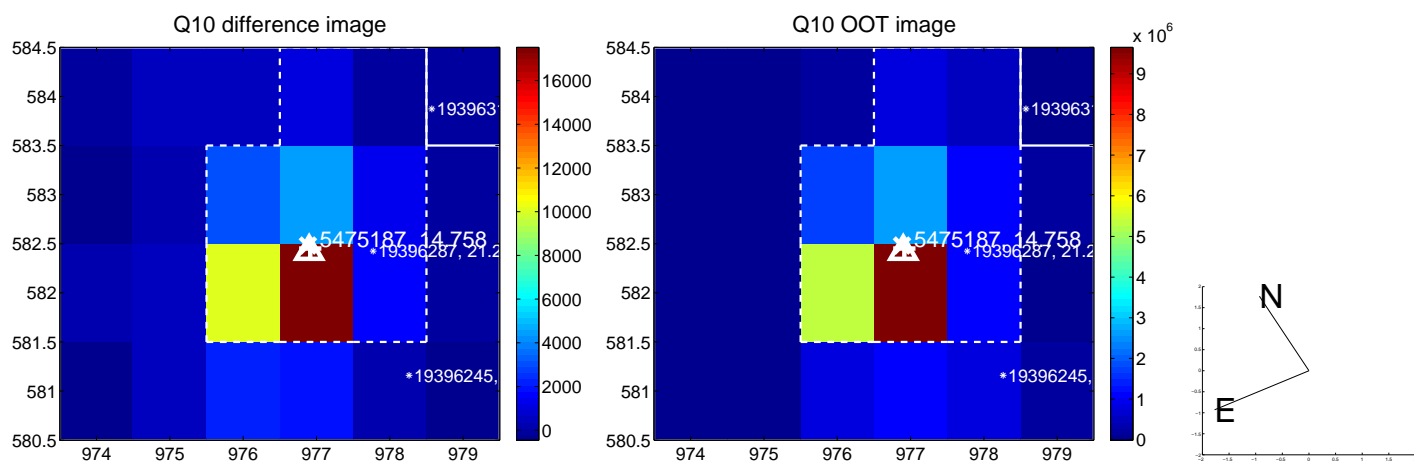
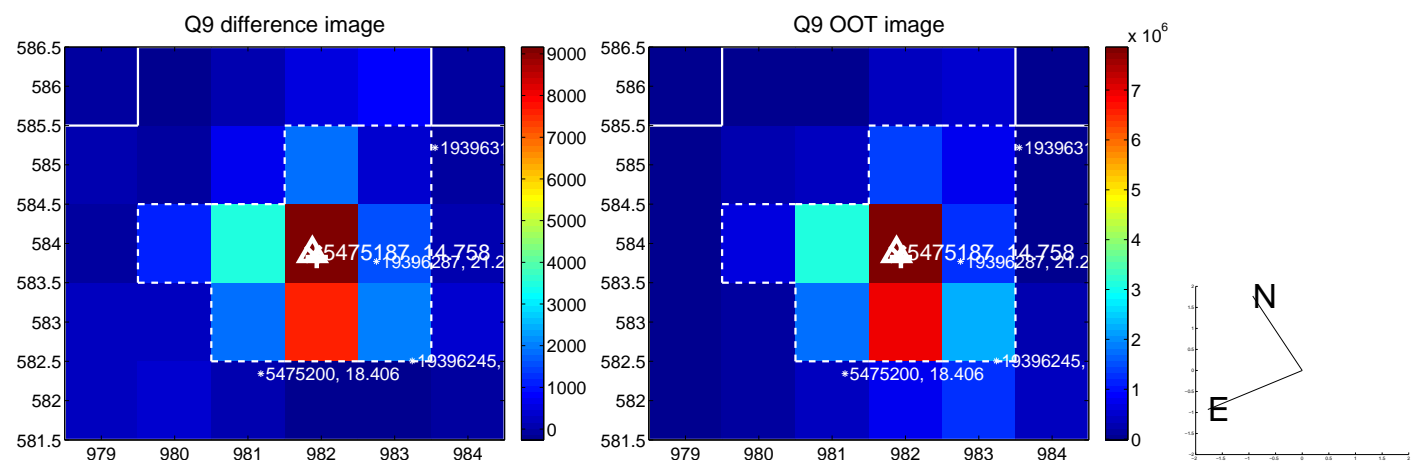


Centroid source offsets from the target star reconstructed from PRF and photometric centroids. **Sky blue crosses:** good quarterly centroid offsets; **Vermillion crosses:** bad quarterly centroid offsets; magenta cross: average over quarters. Length of the crosses: one- σ uncertainty. Blue circle: three-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

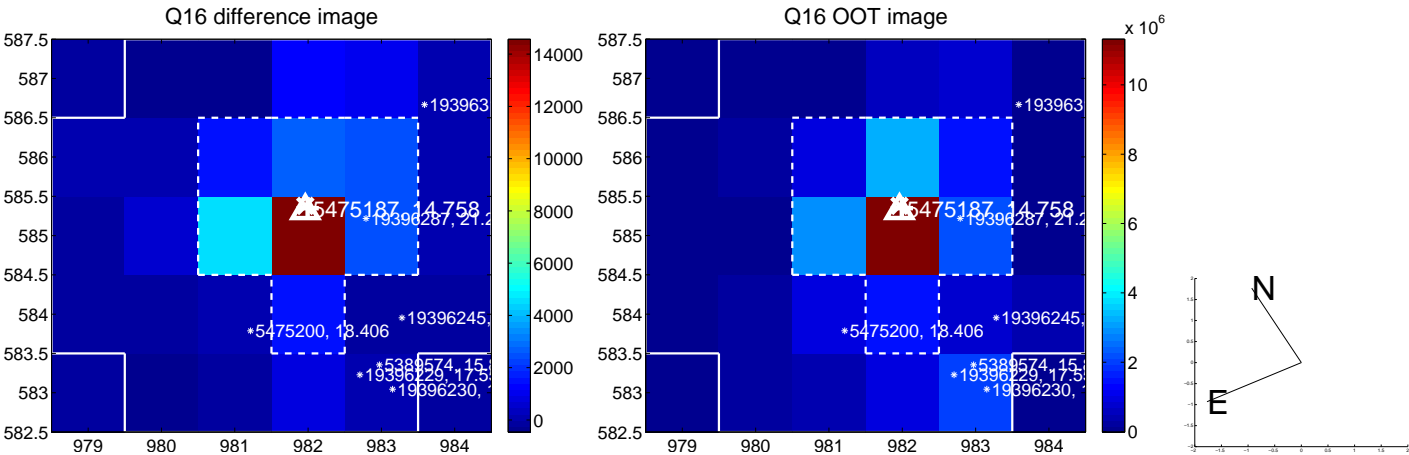
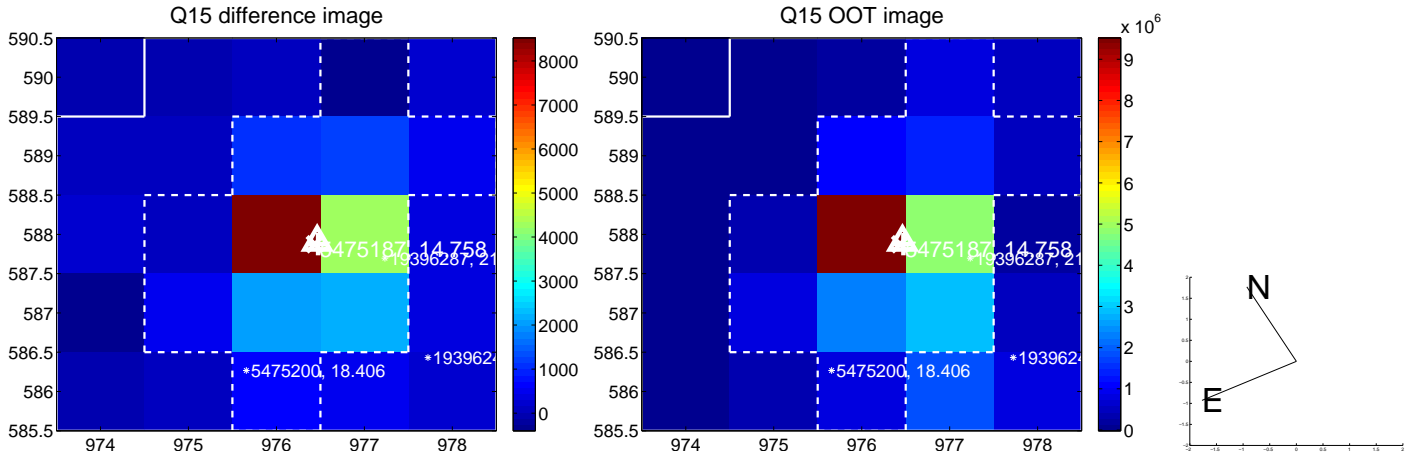
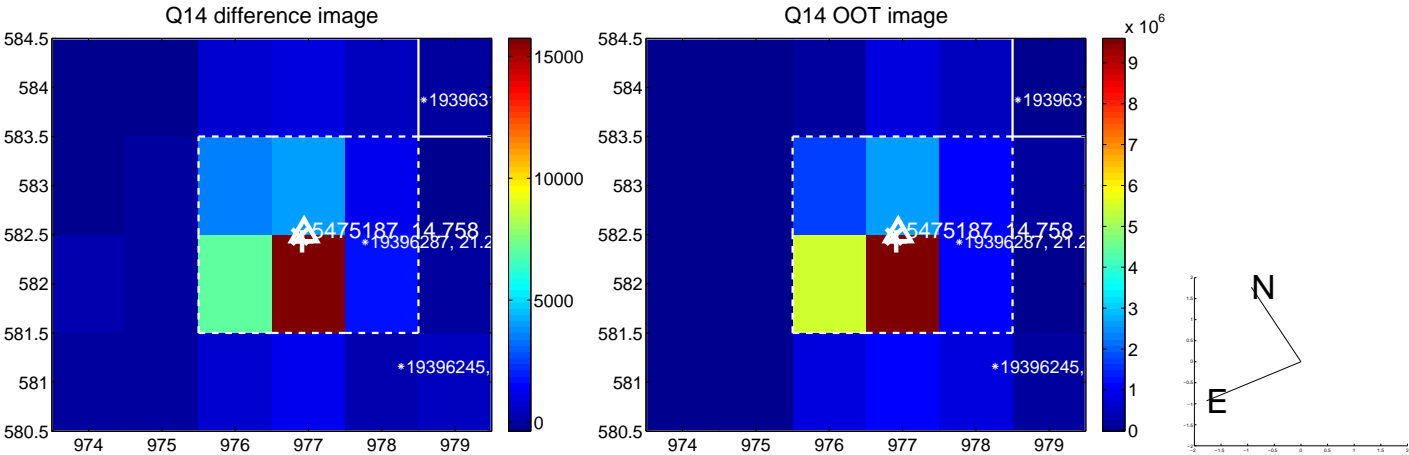
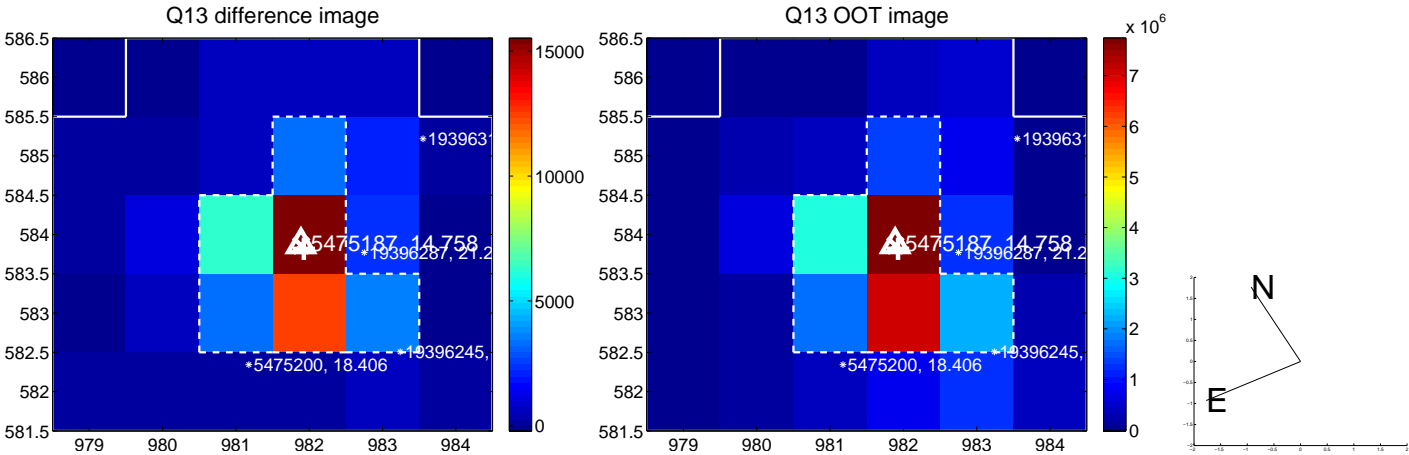
white \times : KIC target position; +: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



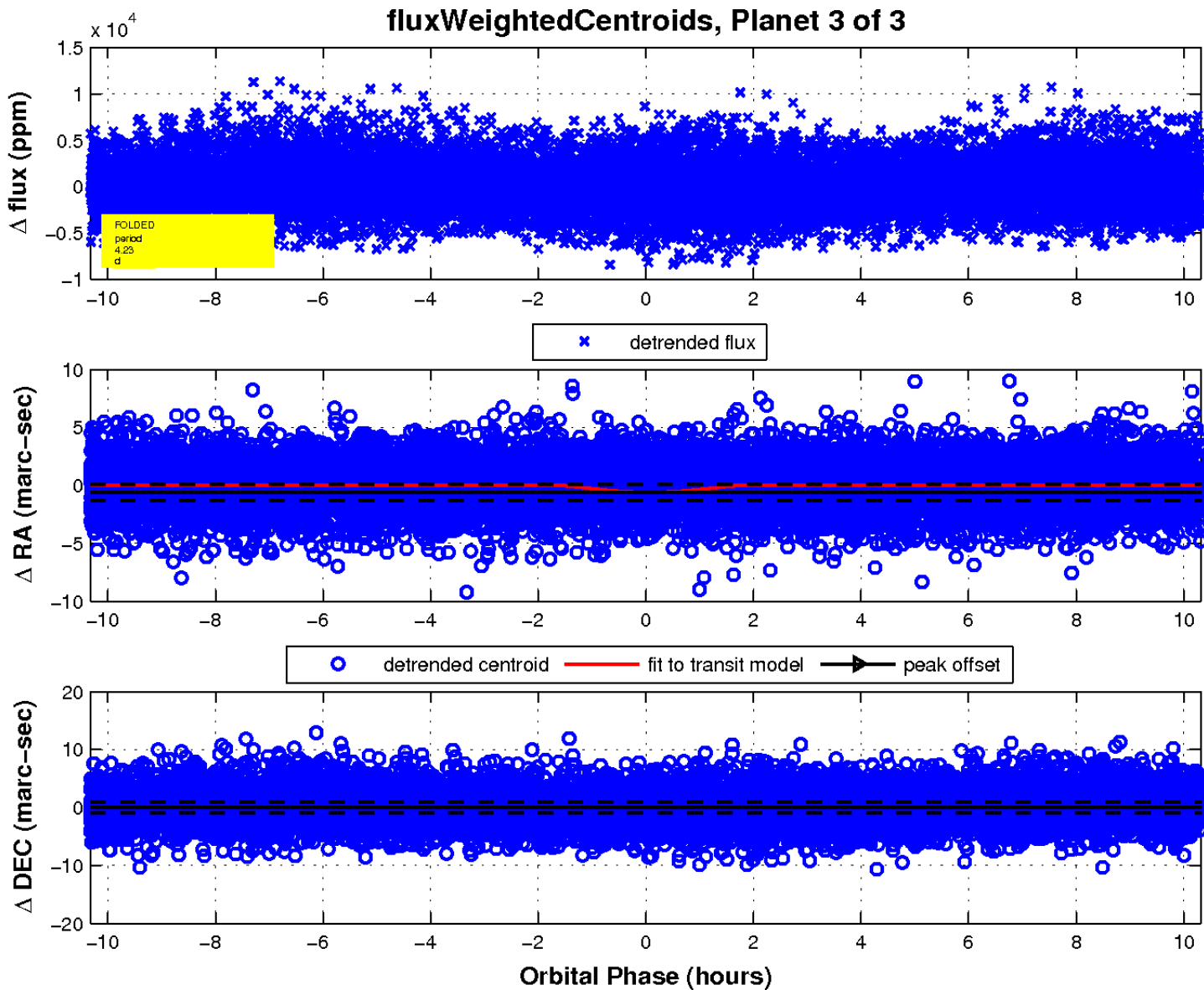
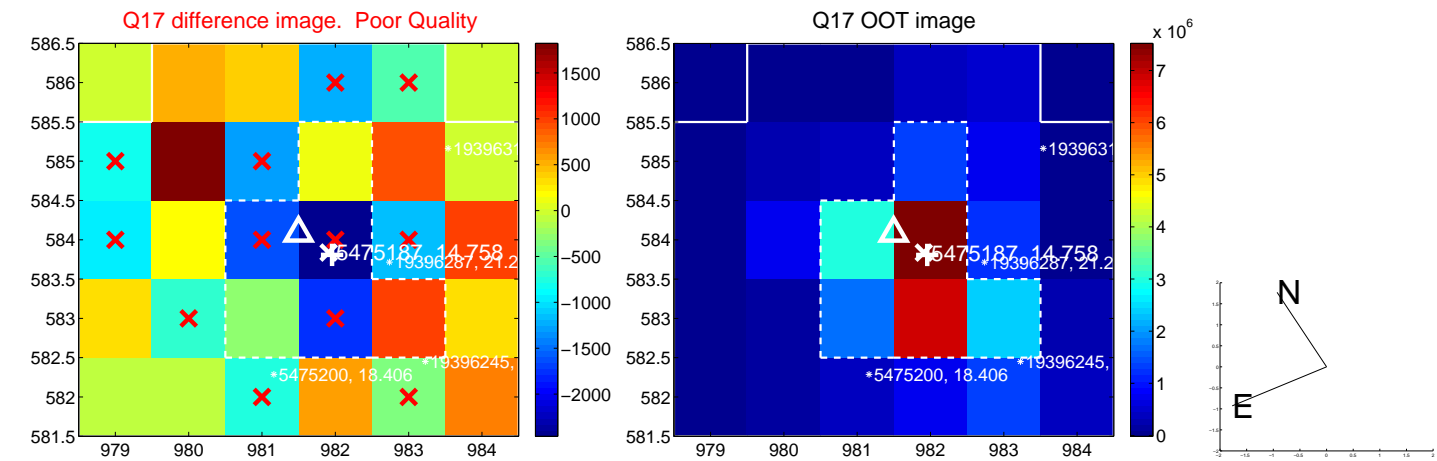
white \times : KIC target position; $+$: OOT centroid; \triangle : difference centroid. red \times : large negative pixel value.



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.



UKIRT Image

Declination

